

The New York Times bestseller

Willpower

Why Self-Control is
the Secret to Success



Roy F. Baumeister and John Tierney

"Willpower affects almost every aspect of our lives . . .

*"This wonderful book provides simple tricks to
help us tap into this important quality"*

See also: *The Willpower Instinct* by Roy F. Baumeister



WILLPOWER

REDISCOVERING THE GREATEST HUMAN STRENGTH

Roy F. Baumeister

and

John Tierney

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*Is There Anything Good
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*The Cultural Animal:
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INTRODUCTION

However you define success—a happy family, good friends, a satisfying career, robust health, financial security, the freedom to pursue your passions—it tends to be accompanied by a couple of qualities. When psychologists isolate the personal qualities that predict “positive outcomes” in life, they consistently find two traits: intelligence and self-control. So far researchers still haven’t

learned how to permanently increase intelligence. But they have discovered, or at least rediscovered, how to improve self-control.

Hence this book. We think that research into willpower and self-control is psychology's best hope for contributing to human welfare. Willpower lets us change ourselves and our society in small and large ways. As Charles Darwin wrote in *The Descent of Man*, "The highest possible stage in moral culture is when we recognize that we ought to control our

thoughts.” The Victorian notion of willpower would later fall out of favor, with some twentieth-century psychologists and philosophers doubting it even existed. Baumeister himself started out as something of a skeptic. But then he observed willpower in the laboratory: how it gives people the strength to persevere, how they lose self-control as their willpower is depleted, how this mental energy is fueled by the glucose in the body’s bloodstream. He and his collaborators discovered that willpower, like a

muscle, becomes fatigued from overuse but can also be strengthened over the long term through exercise. Since Baumeister's experiments first demonstrated the existence of willpower, it has become one of the most intensively studied topics in social science (and those experiments now rank among the most-cited research in psychology). He and colleagues around the world have found that improving willpower is the surest way to a better life.

They've come to realize that most major problems,

painstaking study, led by Wilhelm Hofmann, collected more than ten thousand momentary reports from morning until midnight.

Desire turned out to be the norm, not the exception. About half the time, people were feeling some desire at the moment their beepers went off, and another quarter said a desire had just been felt in the past few minutes. Many of these desires were ones they were trying to resist. The researchers concluded that people spend about a quarter of their waking

hours resisting desires—at least four hours per day. Put another way, if you tapped four people at any random moment of the day, one of them would be using willpower to resist a desire. And that doesn't even include all the instances in which willpower is exercised, because people use it for other things, too, such as making decisions.

The most commonly resisted desire in the beeper study was the urge to eat, followed by the urge to sleep, and then by the urge for leisure, like taking

a break from work by doing a puzzle or game instead of writing a memo. Sexual urges were next on the list of most-resisted desires, a little ahead of urges for other kinds of interactions, like checking e-mail and social-networking sites, surfing the Web, listening to music, or watching television. To ward off temptation, people reported using various strategies. The most popular was to look for a distraction or to undertake a new activity, although sometimes they tried suppressing it directly or

simply toughing their way through it. Their success was decidedly mixed. They were pretty good at avoiding sleep, sex, and the urge to spend money, but not so good at resisting the lure of television or the Web, or the general temptation to relax instead of work. On average, when they tried to resist a desire with willpower, they succeeded about half the time.

A 50 percent failure rate sounds discouraging, and it may well be pretty bad by historical standards. We have no way of knowing

how much our ancestors exercised self-control in the days before beepers and experimental psychologists, but it seems likely that they were under less strain. During the Middle Ages, most people were peasants who put in long, dull days in the fields, frequently accompanied by prodigious amounts of ale. They weren't angling for promotions at work or trying to climb the social ladder, so there wasn't a premium on diligence (or a great need for sobriety). Their villages didn't offer many obvious temptations

beliefs. The Protestant Reformation had made religion more individualistic, and the Enlightenment had weakened faith in any kind of dogma. Victorians saw themselves as living in a time of transition as the moral certainties and rigid institutions of medieval Europe died away. A popular topic of debate was whether morality could survive without religion. Many Victorians came to doubt religious principles on theoretical grounds, but they kept pretending to be faithful believers because

searching for new sources of strength. As Victorians fretted over moral decay and the social pathologies concentrated in cities, they looked for something more tangible than divine grace, some internal strength that could protect even an atheist.

They began using the term *willpower* because of the folk notion that some kind of force was involved—some inner equivalent to the steam powering the Industrial Revolution. People sought to increase their store of it by following the

exhortations of the Englishman Samuel Smiles in *Self-Help*, one of the most popular books of the nineteenth century on both sides of the Atlantic. “Genius is patience,” he reminded readers, explaining the success of everyone from Isaac Newton to Stonewall Jackson as the result of “self-denial” and “untiring perseverance.” Another Victorian-era guru, the American minister Frank Channing Haddock, published an international bestseller titled simply *The Power of Will*. He tried to

sound scientific by calling it “an energy which is susceptible of increase in quantity and of development in quality,” but he had no idea—much less any evidence—of what it might be. A similar notion occurred to someone with better credentials, Sigmund Freud, who theorized that the self depended on mental activities involving the transfer of energy.

But Freud’s energy model of the self was generally ignored by subsequent researchers. It wasn’t until recently, in

Baumeister's laboratory, that scientists began systematically looking for this source of energy. Until then, for most of the past century, psychologists and educators and the rest of the chattering classes kept finding one reason or another to believe it didn't exist.

The Decline of the Will

Whether you survey the annals of academe or the self-help books at the airport, it's clear that the nineteenth-century concept of "character building" has

been out of fashion for quite a while. The fascination with willpower ebbed in the twentieth century partly in reaction to the Victorians' excesses, and partly due to economic changes and the world wars. The prolonged bloodshed of World War I seemed a consequence of too many stubborn gentlemen following their "duty" to senseless deaths. Intellectuals preached a more relaxed view of life in America and much of Western Europe—but not, unfortunately, in Germany, where they developed a

“psychology of will” to guide their country during its bleak recovery from the war. That theme would be embraced by the Nazis, whose rally in 1934 was featured in Leni Riefenstahl’s infamous propaganda film, *The Triumph of the Will*. The Nazi concept of mass obedience to a sociopath was hardly the Victorian concept of personal moral strength, but the distinction was lost. If the Nazis represented the triumph of the will . . . well, when it comes to bad PR, there’s nothing quite like a

personal endorsement from Adolf Hitler.

The decline of will didn't seem like such a bad thing, and after the war there were other forces weakening it. As technology made goods cheaper and suburbanites richer, stimulating consumer demand became vital to the economy, and a sophisticated new advertising industry urged everyone to buy now. Sociologists identified a new generation of "other-directed" people who were guided by their neighbors' opinions rather than by

strong inner moral convictions. The stern self-help books of the Victorian era came to be seen as naïvely self-centered. The new bestsellers were cheery works like Dale Carnegie's *How to Win Friends and Influence People* and Norman Vincent Peale's *The Power of Positive Thinking*. Carnegie spent eight pages instructing readers how to smile. The right smile would make people feel good about you, he explained, and if they believed in you, success was assured. Peale and

other authors came up with an even easier method.

“The basic factor in psychology is the realizable wish,” Peale wrote. “The man who assumes success tends already to have success.” Napoleon Hill sold millions of copies of *Think and Grow Rich* by telling readers to decide how much money they wanted, write the figure down on a piece of paper, and then “believe yourself already in possession of the money.” These gurus’ books would go on selling for the rest of the century, and the feel-good

philosophy would be distilled to a rhyming slogan: “Believe it, achieve it.”

The shift in people’s characters was noticed by a psychoanalyst named Allen Wheelis, who in the late 1950s revealed what he considered a dirty little secret of his profession: Freudian therapies no longer worked the way they were supposed to. In his landmark book, *The Quest for Identity*, Wheelis described a change in character structure since Freud’s day. The Victorian middle-class citizens who

everyone, particularly for the many academics who worry that they risk the politically incorrect sin of “blaming the victim” by suggesting that people’s problems might arise from causes inside themselves. Social problems can also seem easier than character defects to fix, at least to the social scientists proposing new policies and programs to deal with them.

The very notion that people can consciously control themselves has traditionally been viewed suspiciously by psychologists. Freudians

and outside the laboratory. While international surveys showed that U.S. eighth-grade math students had exceptionally high confidence in their own abilities, on tests they scored far below Koreans, Japanese, and other students with less self-esteem.

Meanwhile, in the 1980s, a few researchers started getting interested in self-regulation, the term that psychologists use for self-control. The resurrection of self-control wasn't led by theorists, who were still convinced that willpower

was a quaint Victorian myth. But when other psychologists went into the laboratory or the field, they kept happening on something that looked an awful lot like it.

The Comeback of the Will

In psychology, brilliant theories are cheap. People like to think of the field advancing thanks to some thinker's startling new insight, but that's not how it usually works. Coming up with ideas isn't the hard part. Everyone has a pet

took place. Long after he finished the experiments and moved on to other topics, Mischel kept hearing from his daughters about their classmates. He noticed that the children who had failed to wait for the extra marshmallow seemed to get in more trouble than the others, both in and out of school. To see if there was a pattern, Mischel and his colleagues tracked down hundreds of veterans of the experiments. They found that the ones who had shown the most willpower at age four went on to get

better grades and test scores. The children who had managed to hold out the entire fifteen minutes went on to score 210 points higher on the SAT than the ones who had caved after the first half minute. The children with willpower grew up to become more popular with their peers and their teachers. They earned higher salaries. They had a lower body-mass index, suggesting that they were less prone to gain weight as middle age encroached. They were less likely to report having had problems with drug abuse.

These were stunning results, because it's quite rare for anything measured in early childhood to predict anything in adulthood at a statistically significant level. Indeed, this disconnect was one of the death blows against the Freudian psychoanalytic approach to psychology, which emphasized early childhood experiences as the foundation of adult personality. Surveying this literature in the 1990s, Martin Seligman concluded that there was hardly any convincing proof that episodes in early childhood

have a causal impact on the adult personality, with the possible exceptions of severe trauma or malnutrition. The very few significant correlations he noted between childhood and adult measures could be explained as mostly reflecting genetic (inborn) tendencies, such as having a generally sunny or grumpy disposition. The willpower to resist a marshmallow may well have had a genetic component, too, but it also seemed amenable to nurture, producing that rare childhood advantage

that could pay dividends throughout life. These dividends looked even more remarkable once the overall benefits of self-control were assessed, which Baumeister did in *Losing Control*, a scholarly book he wrote in 1994 with his wife, Dianne Tice, a fellow professor at Case Western Reserve University, and Todd Heatherton, a professor at Harvard.

“Self-regulation failure is the major social pathology of our time,” they concluded, pointing to the accumulating evidence of

exceptionally good at forming and maintaining secure, satisfying attachments to other people. They were shown to be better at empathizing with others and considering things from other people's perspectives. They were more stable emotionally and less prone to anxiety, depression, paranoia, psychoticism, obsessive-compulsive behavior, eating disorders, drinking problems, and other maladies. They got angry less often, and when they did get angry, they were less likely to get

aggressive, either verbally or physically. Meanwhile, people with poor self-control were likelier to hit their partners and to commit a variety of other crimes—again and again, as demonstrated by June Tangney, who worked with Baumeister to develop the self-control scale on personality tests. When she tested prisoners and then tracked them for years after their release, she found that the ones with low self-control were most likely to commit more crimes and return to prison.

The strongest evidence yet was published in 2010. In a painstaking long-term study, much larger and more thorough than anything done previously, an international team of researchers tracked one thousand children in New Zealand from birth until the age of thirty-two. Each child's self-control was rated in a variety of ways (through observations by researchers as well as in reports of problems from parents, teachers, and the children themselves). This produced an especially reliable measure of

children's self-control, and the researchers were able to check it against an extraordinarily wide array of outcomes through adolescence and into adulthood. The children with high self-control grew up into adults who had better physical health, including lower rates of obesity, fewer sexually transmitted diseases, and even healthier teeth. (Apparently, good self-control includes brushing and flossing.) Self-control was irrelevant to adult depression, but its lack made people more prone to

alcohol and drug problems. The children with poor self-control tended to wind up poorer financially. They worked in relatively low-paying jobs, had little money in the bank, and were less likely to own a home or have money set aside for retirement. They also grew up to have more children being raised in single-parent households, presumably because they had a harder time adapting to the discipline required for a long-term relationship. The children with good self-control were much more likely to wind

and social class and race—but all these results remained significant even when those factors were taken into account. In a follow-up study, the same researchers looked at brothers and sisters from the same families so that they could compare children who grew up in similar homes. Again, over and over, the sibling with the lower self-control during childhood fared worse during adulthood. They ended up sicker, poorer, and were more likely to spend time in prison. The results couldn't

be clearer: Self-control is a vital strength and key to success in life.

Evolution and Etiquette

As psychologists were identifying the benefits of self-control, anthropologists and neuroscientists were trying to understand how it evolved. The human brain is distinguished by large and elaborate frontal lobes, giving us what was long assumed to be the crucial evolutionary advantage: the intelligence to solve

the “fruit-seeking brain theory” made lots of sense—but only in theory. The anthropologist Robin Dunbar found no support for it when he surveyed the brains and diets of different animals. Brain size did not correlate with the type of food. Dunbar eventually concluded that the large brain did not evolve to deal with the physical environment, but rather with something even more crucial to survival: social life. Animals with bigger brains had larger and more complex social networks. That suggested a

to get along with the rest of the group. They depend on one another for the food they need to survive. When the food is shared, often it's the biggest and strongest male who gets first choice in what to eat, with the others waiting their turn according to status. For animals to survive in such a group without getting beaten up, they must restrain their urge to eat immediately. Chimpanzees and monkeys couldn't get through meals peacefully if they had squirrel-sized brains. They might expend more calories in fighting

control comes in, and that's why it makes the difference between success and failure in just about every aspect of life.

Why Will Yourself to Read This?

The first step in self-control is to set a goal, so we should tell you ours for this book. We hope to combine the best of modern social science with some of the practical wisdom of the Victorians. We want to tell how willpower—or the lack thereof—has affected the

lives of the great and the not-so-great. We'll explain why corporate leaders pay \$20,000 a day to learn the secrets of the to-do list from a former karate instructor, and why Silicon Valley's entrepreneurs are creating digital tools to promote nineteenth-century values. We'll see how a British nanny tamed a team of howling triplets in Missouri, and how performers like Amanda Palmer, Drew Carey, Eric Clapton, and Oprah Winfrey applied willpower in their own lives. We'll look at how David Blaine

understanding of the self was still pretty much in line with the then-conventional view, called the information-processing model. He and his colleagues talked about the mind as if it were a little computer. These information models of the human mind generally ignored concepts like power or energy, which were so out of fashion that researchers weren't even opposed to them anymore. Baumeister didn't expect to suddenly change his own view of the self, let alone anyone else's. But once he

1: IS WILLPOWER MORE THAN A METAPHOR?

Sometimes we
are devils to
ourselves

When we will
tempt the frailty
of our powers,
Presuming on
their changeful
potency.

—*Troilus, in
Shakespeare's Troilus
and Cressida*

around the world. Palmer couldn't have gotten to Radio City Music Hall without practicing. It took self-control to create her uncontrolled persona, and she credits her success partly to what she calls "the ultimate Zen training ground": posing as a living statue. She performed on the street for six years and started a company hiring out living statues for corporate gigs, like holding platters of organic produce at the opening of a Whole Foods supermarket.

Palmer took up this calling in 1998, when she

flower, but otherwise she remained utterly motionless.

Some people would insult her or throw things at her. They tried to make her laugh. They grabbed her. Some yelled at her to get a real job and threatened to steal her money. Drunks tried to pull her down off the pedestal or to tip her over.

“It was not pretty,” Palmer recalls. “Once I had a frat boy rub his head drunkenly in my crotch as I looked skyward thinking, *Good Lord, what have I done to deserve this?* But

in six years I broke character maybe twice. You literally don't react. You don't even flinch. You just let it pass through you."

The crowds would marvel at her stamina, and people routinely assumed it must be grueling to hold the body in a rigid pose for so long. But Palmer didn't find it a strain on her muscles. She realized there was a physical aspect to the task—she learned not to drink coffee, for instance, because it produced a slight but uncontrollable quiver in her body. But the

been exercising willpower to resist temptation, but that folk concept from the nineteenth century had been mostly abandoned by modern experts. What would it even mean to say that a person was exercising willpower? How could it be shown to be anything more than a metaphor?

The answer, as it turned out, was to start with warm cookies.

The Radish Experiment

Sometimes social scientists have to be a little cruel with

their experiments. When the college students walked into Baumeister's laboratory, they were already hungry because they'd been fasting, and now they were in a room suffused with the aroma of chocolate chip cookies that had just been baked in the lab. The experimental subjects sat down at a table with several culinary choices: the warm cookies, some pieces of chocolate, and a bowl of radishes. Some students were invited to eat the cookies and candy. The unlucky ones were assigned to "the

radish condition”: no treats, just raw radishes.

To maximize temptation, the researchers left the students alone with the radishes and the cookies, and observed them through a small, hidden window. The ones in the radish condition clearly struggled with the temptation. Many gazed longingly at the cookies before settling down to bite reluctantly into a radish. Some of them picked up a cookie and smelled it, savoring the pleasure of freshly baked chocolate. A couple accidentally dropped a

cookie on the floor and then hastened to put it back in the bowl so no one would know of their flirtation with sin. But nobody actually bit into the forbidden food. The temptation was always resisted, if in some cases by the narrowest of margins. All this was to the good, in terms of the experiment. It showed that the cookies were really quite tempting and that people needed to summon up their willpower to resist them.

Then the students were taken to another room and given geometry puzzles to

work on. The students thought they were being tested for cleverness, although in fact the puzzles were insoluble. The test was to see how long they'd work before giving up. This has been a standard technique that stress researchers and others have used for decades because it's a reliable indicator of overall perseverance. (Other research has shown that someone who keeps trying one of these insoluble puzzles will also work longer at tasks that are actually doable.)

The students who'd been allowed to eat chocolate chip cookies and candy typically worked on the puzzles for about twenty minutes, as did a control group of students who were also hungry but hadn't been offered food of any kind. The sorely tempted radish eaters, though, gave up in just eight minutes—a huge difference by the standards of laboratory experiments. They'd successfully resisted the temptation of the cookies and the chocolates, but the effort left them with less energy to tackle the

puzzles. The old folk wisdom about willpower appeared to be correct after all, unlike the newer and fancier psychological theories of the self.

Willpower looked like much more than a metaphor. It seemed to be like a muscle that could be fatigued through use, just as Shakespeare had recognized in *Troilus and Cressida*. The Trojan warrior Troilus, convinced that Cressida will be tempted “most cunningly” by the charms of Greek suitors, tells her that he trusts her desire to remain

experiments, it made immediate sense to clinical psychologists like Don Baucom, a veteran marital therapist in Chapel Hill, North Carolina. He said the Baumeister research crystallized something that he had sensed in his practice for years but never fully understood. He'd seen many marriages suffer because the two-career couples fought over seemingly trivial issues every evening. He sometimes advised them to go home from work early, which might sound like odd advice—why give them

more time to fight with each other? But he suspected that the long hours at work were draining them. When they got home after a long, hard day, they had nothing left to help them overlook their partner's annoying habits, or to be kind and considerate out of the blue, or to hold their tongue when their partner said something that made them want to respond in a mean, sarcastic manner. Baucom recognized that they needed to leave work while they still had some energy. He saw why marriages

were going bad just when stress at work was at its worst: People were using up all their willpower on the job. They gave at the office—and their home suffered the consequences.

After the radish experiment, similar results were observed over and over again in different groups of subjects. Researchers looked for more complex emotional effects and for other ways to measure them, like observing people's physical stamina. A sustained exercise like running a marathon takes more than

all took the stamina test by squeezing the hand exerciser, and researchers compared the results.

The movie had no effect on the stamina of the control group: The people squeezed the handles just as long as they had in a test before the film. But the two other groups quit much sooner, and it didn't matter whether they'd been suppressing their feelings or venting their grief over the poor turtles. Either way, the effort to control their emotional reactions depleted their willpower. Faking it didn't come free.

Neither did a classic mental exercise: the white bear challenge. The white bear has been something of a mascot for psychologists ever since Dan Wegner heard the legend about how the young Tolstoy—or, depending on the version, the young Dostoyevsky—bet that his younger brother couldn't go five minutes without thinking about a white bear. The brother had to pay up, having made a disconcerting discovery about human mental powers. We like to think we control our thoughts, but

This sort of experiment might sound frivolous. Of all the traumas and psychoses afflicting humans, “unwanted white bear thoughts” doesn’t rank very high. Yet that distance from everyday life is precisely what makes it a useful tool to researchers. To understand how well people control their thoughts, it’s best not to pick ordinary thoughts. When a graduate student tried a version of Wegner’s experiment in which people were told not to think about their mothers, the experiment failed in its

purpose, and served to demonstrate only that college students are remarkably skilled at not thinking about their mothers.

What makes Mom different from a white bear? Perhaps the students are trying to separate themselves emotionally from their parents. Perhaps they often want to do things that their mothers would disapprove of, and so they need to put Mom out of their minds. Or perhaps they wish to avoid feeling guilty for not calling their mother as often as

she would like. But notice that all these possible explanations for the difference between Mom and the white bear are things about Mom. That's exactly the problem, at least as a researcher would see it. Mothers are not good topics for pure research, because there is so much baggage—so many mental and emotional associations. The reasons you do or don't think about your mother are many, variable, and highly specific, so they would not easily generalize. In contrast, if people have

puzzles (compared with people who'd been free to ponder anything). They also had a harder time controlling their feelings in another slightly cruel experiment: being forced to remain stoic while watching classic skits from *Saturday Night Live* and a Robin Williams stand-up routine. The audience's facial reactions were recorded and later systematically coded by researchers. Once again, the effects were obvious on the people who'd earlier done the white bear exercise: They couldn't

resist giggling, or at least smiling, when Williams went into one of his riffs.

You might keep that result in mind if you have a boss prone to making idiotic suggestions. To avoid smirking at the next meeting, refrain from any strenuous mental exercises beforehand. And feel free to think about all the white bears you want.

Name That Feeling

Once the experiments showed that willpower existed, psychologists and neuroscientists had a new

set of questions. Exactly what *was* willpower? Which part of the brain was involved? What was happening in the neural circuits? What other physical changes were taking place? What did it feel like when willpower ebbed?

The most immediate question was what to call this process—something more precise than “changeful potency” or “weak will” or the “The devil made me do it.” The recent scientific literature didn’t offer much help. Baumeister had to go all

the way back to Freud to find a model of the self that incorporated concepts of energy. Freud's ideas, as usual, turned out to be both remarkably prescient and utterly wrong. He theorized that humans use a process called sublimation to convert energy from its basic instinctual sources into more socially approved ones. Thus, Freud posited, great artists channel their sexual energy into their work. It was clever speculation, but the energy model of the self didn't catch on with psychologists

urges, and therefore there should be relatively little sexual activity. Have you ever heard of an artists' colony known for its *lack* of sex?

Still, Freud was onto something with his energy model of the self. Energy is an essential element in explaining the liaisons at artists' colonies. Restraining sexual impulses takes energy, and so does creative work. If you pour energy into your art, you have less available to restrain your libido. Freud had been a bit vague about where this energy

Jennifer Gutsell, observed people who were wearing a cap that covered the skull with a dense network of electrodes and wires. This method, called electroencephalographic recording (EEG), enables scientists to detect electrical activity inside the brain. It can't exactly read someone's mind, but it can help map out how the brain deals with various problems. The Toronto researchers paid special attention to the brain region known as the anterior cingulate cortex, which watches for

but he'd take longer to answer correctly when looking at Russian words for colors.

Picking the right color proved to be especially difficult for the people in the Toronto experiment who had already depleted their willpower during the sad animal movie. They took longer to respond and made more mistakes. The wires attached to their skulls revealed notably sluggish activity in the conflict-monitoring system of the brain: The alarm signals for mismatches were weaker. The results

showed that ego depletion causes a slowdown in the anterior cingulate cortex, the brain area that's crucial to self-control. As the brain slows down and its error-detection ability deteriorates, people have trouble controlling their reactions. They must struggle to accomplish tasks that would get done much more easily if the ego weren't depleted.

That ego depletion results in slower brain circuitry is fascinating to neuroscientists, but for the rest of us it would be more useful to detect ego

depletion without covering your skull with wires and electrodes. What are the noticeable symptoms—something to warn you that your brain is not primed for control *before* you get into a fight with your partner or polish off the quart of Häagen-Dazs? Until recently, researchers couldn't offer much help. In dozens of studies, they looked unsuccessfully for telltale emotional reactions, turning up either contradictory results or nothing at all. Being depleted didn't seem to consistently make people

feel depressed or angry or discontented. In 2010, when an international team of researchers combed through the results of more than eighty studies, they concluded that ego depletion's effects on behavior were strong, large, and reliable, but that the effects on subjective feelings were considerably weaker. People in depleted condition reported more fatigue and tiredness and negative emotions, but even those differences weren't large. The results made ego depletion seem like an illness with no

disturbing pictures made them more frightened and upset. Ice-cold water felt more painful to them than it did to people who were not ego-depleted. Desires intensified along with feelings. After eating a cookie, the people reported a stronger craving to eat another cookie—and they did in fact eat more cookies when given a chance. When looking at a gift-wrapped package, they felt an especially strong desire to open it.

So if you'd like some advance warning of trouble, look not for a

be aware of what these feelings can mean. If you're trying to resist temptation, you may find yourself feeling the forbidden desires more strongly just when your ability to resist them is down. Ego depletion thus creates a double whammy: Your willpower is diminished *and* your cravings feel stronger than ever.

The problem can be particularly acute for people struggling with addiction. Researchers have long noticed that cravings are especially strong during withdrawal.

The Mystery of the Dirty Socks

In the 1970s, the psychologist Daryl Bem set about trying to distinguish conscientious people from others by making up a list of behaviors. He assumed he'd find a positive correlation between "turns in school assignments on time" and "wears clean socks," because both would stem from the underlying trait of conscientiousness. But when he collected data from students at Stanford, where he taught, he was surprised to find a hefty negative correlation.

“Apparently,” he joked, “the students could either get their homework done or change their socks every day, but not both.”

He didn’t give it much further thought, but decades later other researchers wondered if there was something to the joke. Two Australian psychologists, Megan Oaten and Ken Cheng, considered the possibility that the students were suffering from the sort of ego depletion revealed in the radish experiment. These psychologists started by administering

were forsaken as the students' self-control waned during exam period.

They stopped exercising. They smoked more cigarettes. They drank so much coffee and tea that their caffeine intake doubled. The extra caffeine might have been excused as a study aid, but if they were really studying more, you'd expect them to be drinking less alcohol, and that didn't happen. Even though there were fewer parties during exam time, the students drank as much as ever. They abandoned healthy diets and increased their

consumption of junk food by 50 percent. It wasn't that they suddenly convinced themselves that potato chips were a brain food. They simply stopped worrying about unhealthy, fattening food when they were focused on exams. They also became less concerned about returning phone calls, washing dishes, or cleaning floors. Final-exam time brought declines in every aspect of personal hygiene that was studied. The students became less diligent about brushing and flossing their teeth. They skipped

washing their hair and shaving. And, yes, they wore dirty socks and other unwashed clothes.

Could all of this merely reflect a practical, if slightly unhealthy, shift in priorities? Were they sensibly saving time so that they could study more? Not quite. During exams, students reported an increase in the tendency to spend time with friends instead of studying—precisely the opposite of what would be sensible and practical. Some students even reported that their study habits got worse

slacking off on the second round. Consciously or unconsciously, they were conserving energy for the final push.

Then Muraven tried another variation in the second round of the experiment. Before testing people's perseverance, he informed them that they could win money by doing well. The cash worked wonders. People immediately found reserves to perform well. Watching the experimental subjects persevere, you'd never have known that their willpower had been

depleted earlier. They were like marathoners who found a second wind once they caught sight of the prize waiting for them at the finish line.

But suppose, upon reaching that prize, the marathoners were suddenly informed that the finish line was actually another mile down the road. That's essentially what Muraven did to the people who won cash for their perseverance in the second round. He waited until after their stellar performance to inform them that they weren't

Lessons from the Street and the Lab

For all her bohemian transgressiveness, Amanda Palmer is thoroughly bourgeois in one respect. Ask her about willpower, and she will tell you that she has never had enough. “I don’t consider myself a disciplined person at all,” she says. But if you press her, she will concede that her six years as a living statue did strengthen her resolve.

“The street performing gave me balls of steel,” she says. “Those hours on the box trained me to stay

focused. Being a performer is about tying yourself to the post of the present moment and staying focused. I'm pretty much the worst when it comes to long-term strategic planning, but I have a really strong brand of work ethic and I'm a very disciplined one-thing person. If it's just one project at a time, I can focus on it for hours."

That's more or less what researchers discovered after studying thousands of people inside and outside the laboratory. The

geometry puzzles—drew on the same source of energy, and this phenomenon has been demonstrated over and over. There are hidden connections among the wildly different things you do all day. You use the same supply of willpower to deal with frustrating traffic, tempting food, annoying colleagues, demanding bosses, pouting children. Resisting dessert at lunch leaves you with less willpower to praise your boss's awful haircut. The old line about the frustrated worker going home and kicking the dog

laboratory tests of perseverance than do people with steadier heartbeats. Other experiments have shown that chronic physical pain leaves people with a perpetual shortage of willpower because their minds are so depleted by the struggle to ignore the pain.

We can divide the uses of willpower into four broad categories, starting with the control of thoughts. Sometimes it's a losing struggle, whether you're fruitlessly trying to ignore something serious ("Out,

damn'd spot!") or can't get rid of an annoying ear worm ("I got you babe, I got you babe"). But you can also learn to focus, particularly when the motivation is strong. People often conserve their willpower by seeking not the fullest or best answer but rather a predetermined conclusion. Theologians and believers filter the world to remain consistent with the nonnegotiable principles of their faith. The best salesmen often succeed by first deceiving themselves. Bankers packaging subprime loans

convinced themselves that there was no problem giving mortgages to the class of unverified borrowers classified as NINA, as in “no income, no assets.” Tiger Woods convinced himself that the rules of monogamy didn’t apply to him—and that somehow nobody would notice the dalliances of the world’s most famous athlete.

Another broad category is the control of emotions, which psychologists call affect regulation when it’s focused specifically on mood. Most commonly,

in-laws politely, but you can't make yourself rejoice over their month-long visit. To ward off sadness and anger, people use indirect strategies, like trying to distract themselves with other thoughts, or working out at the gym, or meditating. They lose themselves in TV shows and treat themselves to chocolate binges and shopping sprees. Or they get drunk.

A third category is often called impulse control, which is what most people associate with willpower: the ability to resist

Finally, there's the category that researchers call performance control: focusing your energy on the task at hand, finding the right combination of speed and accuracy, managing time, persevering when you feel like quitting. In the rest of the book, we'll discuss strategies for improving performance at work and at home, and we'll look at techniques for improving self-control in all the other categories, too—thoughts, emotions, impulses.

But before we get into specific advice, we can offer

2: WHERE DOES THE POWER IN WILLPOWER COME FROM?

Whether or not
ingestion of food
stuffs with
preservatives and
sugar in high
content causes
you to alter your
personality
somehow, or
causes you to act
in an aggressive
manner, I don't

Mardi Gras and the other carnivals held on the eve of Lent. Mardi Gras means Fat Tuesday, the day before Ash Wednesday, when people prepare for a season of fasting and self-sacrifice by shamelessly indulging their desires. In some places it's known as Pancake Day and begins with all-you-can-eat flapjack breakfasts at churches. Bakers honor the occasion by producing special treats--the names of the delicacies vary from culture to culture, but the recipes generally involve gargantuan quantities of

merciful, benevolent god encourage so many already overweight mortals to stuff themselves with deep-fried dough?

But to psychologists there was a certain logic to it: By relaxing before Lent, perhaps people could store up the willpower necessary to sustain themselves through weeks of self-denial. The Mardi Gras theory, as it was known, was never as popular with scientists as it was with pancake eaters in peacock headdresses, but it seemed worth an experiment. In place of a Fat Tuesday

result was embarrassing for the researchers. Matthew Gailliot, the graduate student who had run the study, stood looking glumly at his shoes as he told Baumeister about the fiasco.

Baumeister tried to be optimistic. Maybe the study wasn't a failure. Something *had* happened, after all. They'd succeeded in eliminating the ego-depletion effect. The problem was that they'd succeeded too well. Even the tasteless milkshake had done the job, but how? The researchers began to

consider another possible explanation for the boost in self-control. If it wasn't the pleasure, could it be the calories?

At first the idea seemed a bit daft. Why should drinking some low-fat dairy concoction improve performance on a lab task? For decades, psychologists had been studying performance on mental tasks without worrying about its being affected by a glass of milk. They liked to envision the human mind as a computer, focusing on the way it processed information. In

their eagerness to chart the human equivalent of the computer's chips and circuits, most psychologists neglected one mundane but essential part of the machine: the power cord.

Chips and circuit boards are useless without a source of energy. So is the brain. It took psychologists a while to realize this, and the realization came not from computer models but from biology. The transformation of psychology based on ideas from biology was one of the major developments of the late twentieth century.

Some researchers found that genes had important effects on personality and intelligence. Others began to show that sexual and romantic behavior conformed to predictions from evolutionary theory and resembled aspects of behavior in many animal species. Neuroscientists began to map out brain processes. Others found out how hormones altered behavior. Psychologists were reminded over and over that the human mind exists in a biological body.

This newly emerging emphasis on biology made

the milkshake experimenters think twice before dismissing their results. Before writing off that dairy glop, they figured, maybe they should take a look at its ingredients, and start paying attention to stories from people like Jim Turner.

Brain Fuel

The comedian Jim Turner has played dozens of roles in films and television series, like the football-star-turned-sports-agent on HBO's *Arliss* series, but

frenzy had subsided. But in fact he hadn't been sedated. Quite the reverse: The juice's sugar had given him extra energy.

More precisely, the energy in the juice was converted to glucose, the simple sugar manufactured in the body from all kinds of foods, not just sweet ones. The glucose produced by digestion goes into the bloodstream and is pumped throughout the body. The muscles, not surprisingly, use plenty of glucose, as do the heart and liver. The immune system uses large quantities, but

only sporadically. When you're relatively healthy, your immune system may use only a relatively small amount of glucose. But when your body is fighting off a cold, it may consume gobs of it. That's why sick people sleep so much: The body uses all the energy it can to fight the disease, and it can't spare much for exercising, making love, or arguing. It can't even do much thinking, a process that requires plentiful glucose in the bloodstream. The glucose itself doesn't enter the brain, but it's converted into

happy than average. Hypoglycemia was also reported to be unusually prevalent among criminals and other violent persons, and some creative defense attorneys brought the low-blood-sugar research into court.

The issue became notorious during the 1979 trial of Dan White for the assassination of two city officials in San Francisco, Mayor George Moscone and Harvey Milk, a member of the board of supervisors and the most prominent openly gay politician in America.

and they presented his junk-food consumption (along with other changes in habits) as evidence of his depression, not as the cause of it. But when White received a relatively light sentence, the popular wisdom became that the Twinkie defense had worked, and the public was understandably outraged.

Other defense attorneys actually did argue, with limited success, that their clients' blood-sugar problems should be taken into account. Whatever the legal or moral merits of that argument, there

which convicts would go on to commit violent crimes. These men apparently had less self-control because of their impaired glucose tolerance, a condition in which the body has trouble converting food into usable energy. The food gets converted into glucose, but the glucose in the bloodstream doesn't get absorbed as it circulates. The result is often a surplus of glucose in the bloodstream, which might sound beneficial, but it's like having plenty of firewood and no matches. The glucose remains there

challenges, particularly if they don't monitor themselves carefully. Researchers testing personality have found that diabetics tend to be more impulsive and have more explosive temperaments than other people their age. They're more likely to get distracted while working on a time-consuming task. They have more problems with alcohol abuse, anxiety, and depression. In hospitals and other institutions, diabetics throw more tantrums than other patients. In everyday life, stressful conditions

seem to be harder on diabetics. Coping with stress typically takes self-control, and that's difficult if your body isn't providing your brain with enough fuel.

Jim Turner deals with his self-control problems directly—and hilariously—in a one-man show titled “Diabetes: My Struggles with Jim Turner.” He recalls moments like the argument with his teenage son that ended with him, ostensibly the adult, getting so mad that he went outside and kicked a permanent dent into the

he also recognizes the emotional consequences of glucose. “There are so many little moments of connection that I have missed,” he says, “that I wasn’t available to my son because I was busy dealing with a low-blood-sugar episode and too overwhelmed trying to figure out what was going on. It’s the single biggest heartbreak of this disease.”

What exactly happens to Turner during those moments? You can’t draw definitive conclusions from any anecdote or even from the large studies showing

above-average problems with self-control among diabetics and other groups of people. Correlation is not causation. In social science, the strongest conclusions are permitted only when researchers use experiments that randomly assign people among different treatment conditions, so that individual differences even out. Some people arrive at the experiment happier than others, or more aggressive, or more preoccupied and distracted. There is no way to guarantee that the

the aggressiveness, you'd want about an equal number of aggressive people in the glucose and in the no-glucose conditions, and also equal numbers of pacifists. Random assignment usually does this pretty well. Once you've got representative groups of people, you can see how they're affected by different treatments.

Nutritionists used this method during food experiments at elementary schools. All the children in a class were told to skip breakfast one morning, and

then, by random assignment, half of the children were given a good breakfast at school. The others got nothing. During the first part of the morning, the children who got breakfast learned more and misbehaved less (as judged by monitors who didn't know which children had eaten). Then, after all the students were given a healthy snack in the middle of the morning, the differences disappeared as if by magic.

The magic ingredient was isolated in other experiments by measuring

glucose levels in people before and after doing simple tasks, like watching a video in which a series of words flashed at the bottom of the screen. Some people were told to ignore the words; others were free to relax and watch however they wanted. Afterward, glucose levels were measured again, and there was a big difference: Levels remained constant in the relaxed viewers but dropped significantly in the people who'd been trying to avoid the words. That seemingly small exercise of self-control was associated

with a big drop in the brain's fuel of glucose.

To establish cause and effect, the researchers tried refueling the brain in a series of experiments involving lemonade mixed either with sugar or with a diet sweetener. The strong taste of the lemon made it hard for the tasters to know whether real sugar or diet sweetener was used. The sugar gave them a quick burst of glucose (though not for long, so the experimenters needed to get to the point pretty soon). The diet sweetener didn't furnish any glucose

or, indeed, any nutrition at all.

The effects of the drinks showed up clearly in a study of aggression among people playing a computer game. At first, the game seemed reasonable, but it soon became impossibly difficult. Everyone got frustrated as the game went on, but the one who got a sugar-filled drink managed to grumble quietly and keep playing. The others started cursing aloud and banging the computer. And when by prearranged script the experimenter made an

insulting remark about their performance, the glucose-deprived people were much more likely to get angry.

No glucose, no willpower: The pattern showed up time and again as researchers tested more people in more situations. They even tested dogs. While self-control is a distinctively human trait, in the sense that we've developed it so extensively in the process of becoming cultural animals, it's not unique to our species. Other social animals require at least some

was simply left alone for ten minutes in cages, where they had no choice but to remain and therefore didn't have to exercise any self-control. Then all the dogs were given a familiar toy with a sausage treat inside it. All the dogs had played with this toy in the past and successfully extracted the treat, but for the experiment the toy was rigged so that the sausage could not be extracted. The control group of dogs spent several minutes trying to extract it, but the dogs who'd had to obey the

commands gave up in less than a minute. It was the familiar ego-depletion effect, and the canine cure turned out to be familiar, too. In a follow-up study, when the dogs were given different drinks, the drinks with sugar restored the willpower of the dogs who'd had to obey the commands. Newly fortified, they persisted with the toy just as long as the dogs who'd been in cages. The artificially sweetened drink had no effect, as usual.

Despite all these findings, the growing

community of brain researchers still had some reservations about the glucose connection. Some skeptics pointed out that the brain's overall use of energy remains about the same regardless of what one is doing, which doesn't square easily with the notion of depleted energy. Among the skeptics was Todd Heatherton, who had worked with Baumeister early in his career and eventually wound up at Dartmouth, where he became a pioneer of what is called social neuroscience: the study of links between

brain processes and social behavior. He believed in ego depletion, but the glucose findings just didn't seem to add up.

Heatherton decided on an ambitious test of the theory. He and his colleagues recruited dieters and measured their reactions to pictures of food. Then ego depletion was induced by asking everyone to refrain from laughing while watching a comedy video. After that, the researchers again tested how their brains reacted to pictures of food (as compared with nonfood

glucose flooding through the bloodstream and presumably into the brain.

Dramatically, Heatherton announced the results during his speech accepting the leadership of the Society for Personality and Social Psychology, the world's largest group of social psychologists. In his presidential address at the annual meeting in 2011 in San Antonio, Heatherton reported that the glucose reversed the brain changes wrought by depletion—a finding, he said, that thoroughly surprised him. (Baumeister, sitting in the

audience to watch his protégé enjoy the moment of glory as society president, recalled his own surprise when his own lab had first found the links to glucose.) Heatherton's results did much more than provide additional confirmation that glucose is a vital part of willpower. They helped resolve the puzzle over how glucose could work without global changes in the brain's total energy use. Apparently ego depletion shifts activity from one part of the brain to another. Your brain does not stop working when

glucose is low. It stops doing some things and starts doing others. That may help explain why depleted people feel things more intensely than normal: Certain parts of the brain go into high gear just as others taper off.

As the body uses glucose during self-control, it starts to crave sweet things to eat—which is bad news for people hoping to use their self-control to avoid sweets. When people have more demands for self-control in their daily lives, their hunger for sweets increases. It's not a simple

matter of wanting all food more—they seem to be specifically hungry for sweets. In the lab, students who have just performed a self-control task eat more sweet snacks but not other (salty) snacks. Even just expecting to have to exert self-control seems to make people hungry for sweet foods.

All these results don't offer a rationale for providing sugar fixes to anyone, human or canine, outside the laboratory. The body may crave sweets as the quickest way to get energy, but low-sugar,

highprotein foods and other nutritious fare work just as well (albeit more slowly). Still, the discovery of the glucose effect does point to some useful techniques for self-control. It also offers a solution to a long-standing human mystery: Why is chocolate so appealing on certain days of the month?

Inner Demons

Whatever you think of Jennifer Love Hewitt's acting ability, you have to give her credit for originality when she was

with an alternative method of role prep.

“I started paying close attention to myself and how I felt when I had PMS,” she said. “That’s what formed my basis for playing Satan.”

If that strikes you as a singularly dark view of premenstrual syndrome, you haven’t spent much time at PMSCentral.com and the other Web sites where women swap remedies and stories. They joke that PMS stands for Psychotic Mood Shift, or simply Pass My Shotgun.

Or they share genuine PMS stories like this one:

It ruins a large portion of my life. I have swollen, puffy eyes, I can't think straight, I make wrong decisions, ugly emotional outbursts, irrational thinking, purchases I have to return, overspending, quit jobs, extremely tired, cranky, crying, extreme emotional sensitivity, body aches all over, nerve pain, blank staring, that "not here" feeling.

PMS has been blamed for everything from chocolate binges (it also stands for Provide Me with

Sweets) to murder. After Marg Helgenberger, a star on the *CSI* television show, was photographed at an awards dinner with oddly colored hair, she explained: “That shade was known as ‘PMS Pink.’ I was totally PMSing that day. I was crazy! What did I think, I was gonna get away with pink hair on *CSI*?” The word *crazy* was also used by Melanie Griffith in diagnosing the PMS state that drove her to file for divorce and then abruptly change her mind, although her publicist preferred to use more clinical terms,

calling it “an impulsive act that occurred during a moment of frustration and anger.” Over and over, women describe being mysteriously overcome by impulses that seem weirdly alien.

These dark mood swings have also mystified scientists. To evolutionary psychologists, it seems especially counterproductive for a woman in her childbearing years not to get along with the people around her. Isn't empathy a crucial skill for raising children? Isn't it useful to maintain good

average woman eats about 810 calories at lunch during this time, which is about 170 calories more than what she eats at lunch during the rest of the month.

But most women still aren't getting enough extra calories. The typical woman in a modern thin-conscious society like America does not take in enough extra food to supply the body's increased demands for glucose during these few days each month. When there isn't enough energy to go around, the body has to

ration it, and the reproductive system takes priority, leaving less glucose available for willpower. As a general rule, women are less likely than men to suffer from lapses of self-control, but their self-control problems do worsen during the luteal phase, as studies have repeatedly shown.

During this phase, women spend more money and make more impulsive purchases than at other times. They smoke more cigarettes. They drink more alcohol, and not just because they enjoy drinks

to PMS miss twice as many days of work as other women do. Some of those missed days are due, no doubt, to the physical pain associated with PMS, but some of the absenteeism is probably related to self-control. Following rules is harder when your body is short of glucose. Inside women's prisons, disciplinary problems based on breaking prison rules are highest among women who are at the luteal phase of their cycle. Violent, aggressive acts—legal or illegal—reach a peak among PMS sufferers

during the luteal phase. To be sure, only a few women turn violent at any time, but many report emotional changes during the luteal phase. Studies have repeatedly documented increases in emotional outbursts and distress at this time. Women have more conflicts with spouses and other relationship partners, as well as with colleagues at work. They become less sociable and often prefer to be alone—which may be an effective strategy of avoiding conflicts that would arise from interacting.

The standard explanation for PMS has been that the luteal phase directly causes negative emotions, but that explanation doesn't really fit the data. Women aren't uniformly affected by negative emotions. When Amanda Palmer was posing as a living statue in Harvard Square, she found that PMS weakened her self-control because it liberated both positive and negative feelings.

“I'm prone to being way more sensitive and likely to cry when I'm PMSing, and that translated right into

I would just lose it. I would try to transmit the largest concentration of love I could possibly transmit without speaking or moving my face.”

Her experience is fairly typical of what other women report during the luteal phase: They're affected by a variety of feelings, and their problems often arise from a strong reaction to some event. They say they don't want to get upset but can't seem to stop themselves from getting worked up over minor things. They're not consciously aware that

her emotions, then the same misfortune is more upsetting. The same task at work is more of a challenge if she doesn't have as much energy available to focus her attention. In carefully controlled laboratory tests requiring concentration, women in the luteal phase performed worse than women at other stages of the menstrual cycle, and these effects were found for a general sample of women, not just PMS sufferers. Whether or not they felt the acute symptoms of PMS, their

bodies were short of glucose.

We don't want to exaggerate these problems, because most women cope quite well with PMS at work and at home, and we certainly don't want to suggest that women have weaker willpower than men. To repeat, women on the whole have *fewer* problems with self-control than men: They commit fewer violent crimes and are less likely to become alcoholics or drug addicts. Girls' superior self-control is probably one reason they get better grades in school

insoluble problems and overcome by impulses that seem alien, if not satanic.

Usually, though, the problem is within. It's not that the world has suddenly turned cruel. It's not that Lucifer is tormenting us with dark new temptations and impulses. It's that we're less capable of dealing with ordinary impulses and long-standing problems. The provocations can be real enough—you may well have reason to get angry at your boss or reconsider your marriage. (Melanie Griffith eventually did get

divorced from Don Johnson.) But you won't make much progress on those other problems until you control your own emotions, and that starts with controlling your glucose.

Eat Your Way to Willpower

Now that we've surveyed the problems caused by lack of glucose, we can turn to solutions and to cheerier topics, like good meals and long naps. Here are some lessons and strategies for

putting glucose to work for you:

Feed the beast. By beast, we don't mean Beelzebub. We mean the potential demon inside you or anyone spending time with you. Glucose depletion can turn the most charming companion into a monster. The old advice about eating a good breakfast applies all day long, particularly on days when you're physically or mentally stressed. If you have a test, an important meeting, or a vital project, don't take it on without glucose. Don't get into an argument with

your boss four hours after lunch. Don't thrash out serious problems with your partner just *before* dinner. When you're on a romantic trip across Europe, don't drive into a walled medieval town at seven P.M. and try to navigate to your hotel on an empty stomach. Your car can probably survive the cobblestone maze, but your relationship might not.

Above all, don't skimp on calories when you're trying to deal with more serious problems than being overweight. If you're a smoker, don't try quitting

wilder parades, but they're not all that useful the rest of the year.

To maintain steady self-control, you're better off eating foods with a low glycemic index: most vegetables, nuts (like peanuts and cashews), many raw fruits (like apples, blueberries, and pears), cheese, fish, meat, olive oil, and other "good" fats. (These low-glycemic foods may also help keep you slim.) The benefits of the right diet have shown up in studies of women with PMS, who report fewer symptoms when

they're eating healthier food. There has also been a successful series of experiments carried out with thousands of teenagers in correctional institutions. After the institutions replaced some of the sugary foods and refined carbohydrates with fruits, vegetables, and whole grains, there was a sharp decline in escape attempts, violence, and other problems.

When you're sick, save your glucose for your immune system. The next time you're preparing to drag your aching body to

work, here's something to consider: Driving a car with a bad cold has been found to be even more dangerous than driving when mildly intoxicated. That's because your immune system is using so much of your glucose to fight the cold that there's not enough left for the brain.

If you're too glucose-deprived to do something as simple as driving a car, how much use are you going to be in the office (assuming you make it there safely)? Sometimes the job has to be muddled

A recent study found that workers who were not getting enough sleep were more prone than others to engage in unethical conduct on the job, as rated by their supervisors and others. For example, they were more likely than others to take credit for work done by somebody else. In a laboratory experiment offering test takers the chance to win cash, students who had not slept enough were more likely than others to take advantage of an opportunity to cheat. Not getting enough sleep has

3: A BRIEF HISTORY OF THE TO-DO LIST, FROM GOD TO DREW CAREY

In the beginning
God created the
heavens and the
earth; and the
earth was
without form and
empty, and
darkness was
upon the face of
the deep; and the
Spirit of God was
brooding upon

to be broken down into a schedule of daily tasks, starting with Monday's to-do list:

1. Let there be light.
2. Observe light.
3. Confirm light is good.
4. Divide light from darkness.
5. Give name to light (Day).
6. Give name to darkness (Night).

Thus was writ the weekly calendar: Tuesday for firmament-making chores, Wednesday for creating land and trees, Thursday for stars, Friday for fish and fowl, Saturday for man

and woman, Sunday for R&R. The tasks were checked off one at a time, then reviewed at the end of the week: “And God saw every thing that He had made, and, behold, it was very good.”

Does that restful weekend sound anything like yours? At first glance, the Genesis strategy seems ridiculously obvious: Set a goal; make a list of the steps to reach it; do them; relax. But how many mortals actually cross off all the items on their weekly list? Our failure rate keeps climbing as the lists

essential components of the Genesis to-do list.

The first step in self-control is to set a clear goal. The technical term researchers use for self-control is self-regulation, and the “regulation” part highlights the importance of a goal. Regulating means changing, but only a particular kind of intentional, meaningful changing. To regulate is to guide toward a specific goal or standard: the speed limit for cars on a highway, the maximum height for an office building. Self-control without goals and other

standards would be nothing more than aimless change, like trying to diet without any idea of which foods are fattening.

For most of us, though, the problem is not a lack of goals but rather too many of them. We make daily to-do lists that couldn't be accomplished even if there were no interruptions during the day, which there always are. By the time the weekend arrives, there are more unfinished tasks than ever, but we keep deferring them and expecting to get through them with miraculous speed. That's

fault at any time; I would conquer all that either natural inclination, custom, or company might lead me into.” Soon enough, he noticed a problem. “While my care was employ’d in guarding against one fault, I was often surprised by another. Habit took the advantage of inattention; inclination was sometimes too strong for reason.”

So Franklin tried a divide-and-conquer approach. He drew up a list of virtues and wrote a brief goal for each one, like this one for Order: “Let all your

things have their places; let each part of your business have its time.” There were a dozen more virtues on his list—Temperance, Silence, Resolution, Frugality, Industry, Sincerity, Justice, Moderation, Cleanliness, Tranquility, Chastity, and Humility—but he recognized his limits. “I judg’d it would be well not to distract my attention by attempting the whole at once,” Franklin explained, “but to fix it on one of them at a time.” The result was what he called a “course,” and what today would be marketed as *13 Weeks to*

Total Virtue. Long before Steven Covey's seven habits and leather-bound organizers and planners, long before the Daily Affirmations recited by the likes of Stuart Smalley, Franklin devised a regimen complete with a "table of virtues" and an inspirational prayer:

**Father of light and life,
thou Good Supreme!**

**O teach me what is
good; teach me Thyself!**

**Save me from folly,
vanity, and vice,**

**From every low
pursuit; and fill my
soul**

**With knowledge,
conscious peace, and
virtue pure;
Sacred, substantial,
never-fading bliss!**

In a paper notebook, Franklin drew lines of red ink to make thirteen weekly charts, one for every virtue. Each chart had columns for the days and rows for all the virtues, starting with the virtue of the week. At the end of the day, he would go down the column and put a black pencil mark in the row of any virtue that he'd failed to uphold. In one chart, compiled during a week

devoted to Temperance, he gave himself black marks for other virtues: not enough Silence and Order on Sunday, more disorder and too little Industry on Tuesday, a breakdown in Resolution and Frugality on Friday. But he met his weekly goal by keeping the row for Temperance blank every day. Encouraged by that progress, he could then move on to a different virtue the next week, with the hope that the first week had left him with a “habitude” for Temperance that would persist even as he concentrated on

It didn't quite work out that way. The marks kept appearing on the pages. In fact, as he kept repeating the course, erasing the black pencil marks from the paper to make a fresh start, he eventually wore holes in the paper. So he drew his red-ink charts again, in a sturdier notebook with leaves made of ivory (which spread open like a fan). After completing a course, he could wipe off the pencil marks with a wet sponge, and the ivory charts proved remarkably durable. Nearly half a century later, when

he was a diplomat flirting with ladies in Paris, he still had the charts and liked to show them off, causing one French friend to marvel at touching “this precious booklet.” Unlike his self-help successors (including the ones who borrowed his name for the FranklinCovey 31-Day Planner), Franklin never tried marketing an international line of notebook organizers, perhaps because he was too busy in Paris trying to get help for George Washington’s army. Or maybe because his

a young journeyman printer, he tried to practice Order by drawing up a rigid daily work schedule, he kept getting interrupted by unexpected demands from his clients—and Industry required him to ignore the schedule and meet with them. If he practiced Frugality (“Waste nothing”) by always mending his own clothes and preparing all his own meals, there’d be less time available for Industry at his job—or for side projects like flying a kite in a thunderstorm or editing the Declaration of

Independence. If he promised to spend an evening with his friends but then fell behind his schedule for work, he'd have to make a choice that would violate his virtue of Resolution: "Perform without fail what you resolve."

Still, Franklin's goals seem fairly consistent by comparison with modern ones. He focused on the old Puritan virtues of hard work and didn't aim for much fun (at least not on paper). He didn't resolve to enjoy long walks on the beach, volunteer with a

Moderation they violate another of Franklin's virtues, Justice.

The result of conflicting goals is unhappiness instead of action, as the psychologists Robert Emmons and Laura King demonstrated in a series of studies. They had people list their fifteen main goals and mark which ones conflicted with which others. In one study, the subjects kept daily logs of their emotions and physical symptoms for three weeks, and they gave researchers access to their health records for the

First, you worry a lot. The more competing demands you face, the more time you spend contemplating these demands. You're beset by rumination: repetitive thoughts that are largely involuntary and not especially pleasant.

Second, you get less done. It might seem that people who think more about their goals would also take more steps to reach them, but instead they replace action with rumination. The researchers found that people with clear,

unconflicting goals tended to forge ahead and make progress, but the rest were so busy worrying that they got stuck.

Third, your health suffers, physically as well as mentally. In the studies, people with conflicting goals reported fewer positive emotions, more negative emotions, and more depression and anxiety. They had more psychosomatic complaints and symptoms. Even just plain physical sickness, measured both by the number of visits to the doctor and by the number

of self-reported illnesses over the course of a year, was higher among the people with conflicting goals. The more the goals conflicted, the more the people got stuck, and the more unhappy and unhealthy they became.

They paid the price for too much brooding—in the most common modern use of the word, not the one in Genesis. The old term for incubation would eventually come to be associated with mental distress, no doubt because so many people could see the same problems later

measured by psychologists. A hen might brood contentedly, but humans suffer when their conflicting goals leave them sitting around doing nothing. And they can't resolve those conflicts until they decide which kinds of goals will do them the most good.

Which Goals?

Joe is having a cup of coffee in a restaurant. He's thinking of the time to come when . . .

Suppose, as a storytelling exercise, you finish that

Now consider the actions described in your story. In each story, over how long a period do those actions take place?

This is not, of course, a literary test for aspiring novelists. It's an experiment that was previously conducted by psychiatrists among heroin addicts at a treatment center in Burlington, Vermont. The researchers also gave the exercises to a control group of adults who were demographically similar to the addicts (no college degree, annual income of less than twenty

thousand dollars, etc.). When Joe sat in the coffee shop thinking of the “time to come,” that time typically covered about a week in the stories from the control group, but in the heroin addicts’ stories it covered only an hour. When the control group wrote about “the future” for Bill, they tended to mention long-term aspirations, like earning a promotion at work or getting married, while the addicts wrote about upcoming events, like a doctor’s appointment or a visit with relatives. The

getting \$375 today or \$1,000 a year from now, the addicts are more likely to take the quick money, and so are alcoholics and smokers. The psychiatrist Warren Bickel, who tested those addicts in Vermont and has continued research at the University of Arkansas, says that in studies of heavy users of tobacco, alcohol, and other drugs, a preference for short-term payoffs has been observed again and again. (The only exception was, once again, marijuana; being far less addictive than other

smokers are exemplars of the hazards of short-term goals. Ignoring the long term is hazardous to your health, both physically and fiscally. In another experiment with those stories about Joe and Bill, researchers found that people with high incomes tended to look further into the future than people with low incomes. That difference is partly due to necessity: If you're scrambling to pay the rent, you don't have the luxury of comparing 401(k) retirement plans. Yet being unable to pay the rent can

survey of citations ranked him in fourth place behind Freud, Skinner, and Piaget). He and Dale Schunk studied children between the ages of seven and ten who were having difficulty with math. The children took a course featuring self-directed learning, with many arithmetic exercises. Some of the students were told to set themselves proximal goals of trying to do at least six pages' worth of problems in each session. Others were told to set only one distal goal of completing forty-two pages

by the end of seven sessions. The pace was thus the same for both goals. A third group did not set goals, and a fourth group did not even do the exercises.

The group with the proximal goals outperformed everyone else when the program was over and competence was tested. They succeeded, apparently, because meeting these daily goals gradually built their confidence and self-efficacy. With their focus on a specific goal for each session, they learned better

Focusing on far-off goals seemed to be more effective than focusing on intermediate goals, like getting good grades, going on holidays, or earning a diploma. Those distal goals also seemed to be more useful than present-oriented goals, like aiming to help others or acquire knowledge. Why did the long-term objectives work with these high school students but not in the earlier study with the arithmetic lessons? One reason is that the high school students could clearly see a connection

of it, yet I was, by the endeavour, a better and a happier man than I otherwise should have been if I had not attempted it.”

Fuzzy Versus Fussy

To reach a goal, how specific should your plans be? In one carefully controlled experiment, researchers monitored college students taking part in a program to improve their skills at studying. In addition to receiving the usual instructions on how to use time effectively, the students were randomly

assigned among three planning conditions. One group was instructed to make daily plans for what, where, and when to study. Another made similar plans, only month by month instead of day by day. And a third group, the controls, did not make plans.

The researchers felt they were on solid ground in predicting that the day-by-day plans would work best. But they were wrong. The monthly planning group did the best, in terms of improvements in study habits and attitudes.

Among the weaker students (though not among the good ones), monthly planning led to much bigger improvements in grades than did the daily planning. Monthly planners also kept it up much longer than the daily planners, and the continued planning thus was more likely to carry over into their work after the program ended. A year after the program ended, the monthly planners were still getting better grades than the daily planners, most of whom by this point had largely abandoned

planning, daily or otherwise.

Why? Daily plans do have the advantage of letting the person know exactly what he or she should be doing at each moment. But their preparation is time-consuming, because it takes much longer to make thirty daily plans than a broad plan for the month without any daily details. Another drawback of daily plans is that they lack flexibility. They deprive the person of the chance to make choices along the way, so the person feels

locked into a rigid and grinding sequence of tasks. Life rarely goes exactly according to plan, and so the daily plans can be demoralizing as soon as you fall off schedule. With a monthly plan, you can make adjustments. If a delay arises one day, your plan is still intact.

The most extensive experiments in fuzzy-versus-fussy planning have been the uncontrolled ones run by military leaders on the battlefields of Europe. Napoleon once summarized his idea of strategic military planning:

“You engage, and then you wait and see.” By making contact with the enemy and then improvising, he triumphed and made his armies the envy (and the scourge) of Europe. His rivals to the north, the Prussians, groped for some advantage to make sure they didn’t keep losing to the French, and they came up with more planning. The officer class of other countries ridiculed the idea that soldiers should sit at tables with pens and paper, making plans. But the plans turned out to be a genuine advantage, and the

next time the two nations fought, the Prussians won a resounding victory.

By World War I, everyone was planning. By World War II, military leaders had the bureaucratic skills for what has been called the most complicated logistical exercise in history: the invasion of Normandy. The Allied force of 160,000 that landed on the beaches wasn't large by the standards of Napoleon, who had marched into Russia with more than 400,000 troops. But the operation was orchestrated

so precisely that planners invented their own calendar for a landing on D-day at precisely H-Hour (1.5 hours after nautical twilight). The to-do list had detailed instructions covering the preparations (like the bombing runs on day D-3) and then the invasion itself. It continued all the way to day D+14, specifying where reinforcements would arrive a full two weeks after the beginning of the battle. The military planners' confidence might have seemed presumptuous to Napoleon, but their success

raised everyone's faith in their powers.

After the war, corporate America had new planning heroes, like the Whiz Kids, a group of World War II veterans who reorganized the Ford Motor Company. Their leader was Robert S. McNamara, who before the war had taught accounting at Harvard Business School. He used his mathematical skills to analyze bombing missions in the Army Air Force's Office of Statistical Control, and his success there led to the job at Ford. Then he went back to the military to

to managing their affairs. To keep it short, he instructed each to do this in twenty-five words or less. The exercise stumped most of them. None of the distinguished men in uniform could come up with anything.

The only general who managed a response was the lone woman in the room. She had already had a distinguished career, having worked her way up through the ranks and been wounded in combat in Iraq. Her summary of her approach was as follows: "First I make a list of

priorities: one, two, three, and so on. Then I cross out everything from three on down.”

The other generals might have objected to her approach, arguing that everyone has more than two goals, and that some projects—like, say, D-day—require more than two steps. But this general was on to something. Hers was a simple version of a strategy for reconciling the long-term with the short-term, the fussy with the fuzzy. She was aiming, as we will see, for a mind like water.

Drew Carey's Dream In-Box

One day in Hollywood, when faced with the usual dispiriting sight of his desk, Drew Carey had a fantasy. He looked at the mounds of paper and thought: *What would David Allen do? Or, more precisely: What if I could get David Allen to come here and deal with this stuff?*

Until that point, Carey was a fairly typical victim of information overload, if a celebrity can ever be called typical. He'd starred

littered with unpaid bills, unanswered letters, unfinished tasks, unfulfilled promises.

“I have self-control in some ways, but not in others,” Carey says. “It depends on what’s at stake. I just got so fed up with the mess in my office. I had boxes of paperwork and a desk I couldn’t get through. Both sides of my computer were piled up with crap and old mail. You know, it was at a point where I couldn’t think. I always felt out of control. I always knew I had stuff to do. You can’t read a book and enjoy

yourself because in the back of your mind you feel like, *I should go through those e-mails I have.* You're never really at rest."

Carey had picked up a copy of David Allen's book *Getting Things Done: The Art of Stress-Free Productivity*, yet the subtitle's bliss continued to elude him. "I was reading the book and doing some of the stuff in it, but not all of it. I was so desperate. I finally said, 'Shit, man, I'm rich,' and I called him up directly. I contacted his organization and asked how much it would cost if

David Allen came out and worked with me personally. He said, ‘For x amount of money, I’ll work with you for a whole year.’ And I said, ‘Done.’ It cost me a lot of money, but I didn’t even think about it.”

However large x was, Carey’s decision makes perfect sense to devotees of GTD, the acronym for Allen’s book that has become the name for a system of working and living. But it’s not the usual personality-driven cult of self-help gurus and motivational speakers. Allen doesn’t offer seven

experimenters and Allen independently arrived at the same technique, but they took very different paths. Allen did not operate from any psychological theory. He worked strictly by trial and error, starting, in his own life, with lots of trials and a good deal of error. Coming of age in the 1960s, he studied Zen and Sufi texts, started grad school in history at Berkeley, dropped out, experimented with drugs (punctuated by a brief mental breakdown), taught karate, and worked for a company offering

until his skill at running seminars led to invitations to work with executives at Lockheed and other corporations. As weird as this résumé path sounds, Allen sees a certain consistency in the progression from philosophy, mind-altering drugs, and karate to personal-growth trainer and corporate consultant. He describes it all as a quest for mental peace, for a “mind like water,” the phrase he borrows from his karate lessons: “Imagine throwing a pebble into a still pond. How does the

paperwork or any kind of clutter. On the right side of his L-shaped desk are three stacked wooden trays, all utterly empty, including his in-box. On the left side are another two trays with a dozen books and magazines, which are his to-read pile for airplane trips. Otherwise, his desk is immaculate. In accordance with the four *Ds* of his system, everything that has not been done, delegated, or dropped has been deferred to a half dozen two-drawer file cabinets, which contain his alphabetized plastic folders

with labels printed by the little machine next to his computer. You might dismiss this all as evidence of dreary anal-retentiveness, but Allen could not be less dour or more relaxed.

When he began working with overtaxed executives, he saw the problem with the traditional big-picture type of management planning, like writing mission statements, defining long-term goals, and setting priorities. He appreciated the necessity of lofty objectives, but he could see that these clients

“Most people have never tasted what it’s like to have nothing on their mind except whatever they’re doing,” Allen says. “You could tolerate that dissonance and that stress if it only happened once a month, the way it did in the past. Now people are just going numb and stupid, or getting too crazy and busy to deal with the anxiety.”

Instead of starting with goals and figuring out how to reach them, Allen tried to help his clients deal with the immediate mess on their desks. He could see the impracticality of

traditional bits of organizational advice, like the old rule about never touching a piece of paper more than once—fine in theory, impossible in practice. What were you supposed to do with a memo about a meeting next week? Allen remembered a tool from his travel-agent days, the tickler file. The meeting memo, like an airplane ticket, could be filed in a folder for the day it was needed. That way the desk would remain uncluttered, and the memo wouldn't distract you until the day it

was needed. Allen's tickler file—thirty-one folders for each day of the current month, twelve folders for each of the months—would become so widely copied that his followers used it for the name of a popular lifehacker Web site: 43folders.com.

Besides getting paperwork off the desk, the tickler file also removed a source of worry: Once something was filed there, you knew you'd be reminded to deal with it on the appropriate day. You weren't nagged by the fear that you'd lose it or forget

workshop for writing down those agreements.”

There was, of course, nothing revolutionary about the strategy of listing one’s commitments and goals. The make-a-list strategy had been in every self-help program since Noah’s Ark and the Ten Commandments. But Allen made refinements with the help of a veteran management consultant named Dean Acheson (not the former secretary of state). To help his clients eliminate distractions, Acheson started off by having them write down

does!” As Allen went on to work with his own clients, he preached the importance of the Next Action, or NA, as GTDers call it. The to-do list was not supposed to have items like “Birthday gift for Mom” or “Do taxes.” It had to specify the very next action, like “Drive to jewelry store” or “Call accountant.”

“If your list has ‘Write thank-you notes,’ that’s a fine Next Action, as long as you have a pen and cards,” Allen says. “But if you don’t have the cards, you’ll know subliminally that you can’t

write the notes, so you'll avoid the list and procrastinate." That distinction might sound easy enough to learn, but people get it wrong all the time. When Allen hears that John Tierney has been inspired by the book to install a GTD organizer on his smartphone, Allen promptly offers to bet that most of the items on the Next Action list won't be immediately doable. Sure enough, he finds the list dominated by imperatives like "Contact mint.com researchers" or "Consult Esther Dyson about self-

control”—much too vague for GTD standards.

“How are you going to contact or consult them?” Allen asks. “Do you already have the phone number or e-mail address? Have you decided whether to call or e-mail? That dumb little distinction matters. Everything on that list is either attracting or repulsing you. If you say ‘Consult Esther’ because you haven’t finished thinking exactly what you’re going to do next, there’s a part of you that doesn’t want to look at the list. You’re walking around

with this subliminal anxiety. But if you put down “E-mail Esther,” you think, *Oh, I can do that*, and you move forward and feel you’ve finished something.”

A few years ago, when the technology writer Danny O’Brien sent a questionnaire asking seventy of the most “sickeningly overprolific” people he knew for their organizational secrets, most said they didn’t use special software or other elaborate tools. But a good many did say they followed the GTD system, which

doesn't require anything more complicated than pen, paper, and folders. As yet there's no body of peer-reviewed research comparing GTDers with a control group. But there is evidence in the psychological literature of the mental stress that Allen observed. Psychologists have also been studying how to eliminate the monkey mind. They just use a different term for it.

The Zeigarnik Effect

The discovery began, according to the legend

among psychologists, with a lunch in the mid-1920s near the University of Berlin. A large group from the university went to a restaurant and placed their orders with a single waiter, who didn't bother writing anything down. He simply nodded. Yet he served everyone's food correctly, a feat of memory that impressed the group. They finished eating and left the restaurant, whereupon one person (the legend is unclear on exactly who) returned to retrieve an item that had been left behind. The person spotted

the waiter and asked for help, hoping to benefit from his obviously excellent memory.

But the waiter looked back blankly. He had no idea who the patron was, much less where the person had sat. When asked how he could have forgotten everything so quickly, the waiter explained that he remembered each order only until it was served.

One of the scholars, a young Russian psychology student named Bluma Zeigarnik, and her mentor, the influential thinker Kurt

Lewin, pondered this experience and wondered if it pointed to a more general principle. Did the human memory make a strong distinction between finished and unfinished tasks? They began observing people who were interrupted while doing jigsaw puzzles. This research, and many studies in the following decades, confirmed what became known as the Zeigarnik effect: Uncompleted tasks and unmet goals tend to pop into one's mind. Once the task is completed and the goal reached, however,

thought. That's why when Bill Murray in *Groundhog Day* keeps shutting off "I Got You Babe" on his clock radio, the tune keeps going through our minds (and keeps driving him crazy). And that's why this kind of ear worm is so often an awful tune rather than a pleasant one. We're more likely to turn off the bad one in midsong, so it's the one that returns to haunt us.

Why would the mind inflict "I Got You Babe" on itself? Psychologists have generally assumed that earworms are an

hypothesis was that the unconscious mind is seeking help from the conscious mind: Like a small child tugging at the sleeve of an adult to get attention and help, the unconscious mind is telling the conscious mind to finish the task.

But now there's a newer and better explanation for the Zeigarnik effect, thanks to some recent experiments conducted by E. J. Masicampo, a graduate student at Florida State working with Baumeister. In one study, he assigned some students to think

about their most important final examination. Others, in a control condition, thought about the most important party pending on their social calendar. Among the ones who thought about the exam, half were also told to make specific plans of what, where, and when they would study. But nobody did any actual studying during the experiment.

Then everyone performed a task that contained a subtle measure of the Zeigarnik effect. They were given word fragments and instructed

reminder that continues unabated until the task gets done. The persistence of distracting thoughts is not an indication that the unconscious is working to finish the task. Nor is it the unconscious nagging the conscious mind to finish the task right away. Instead, the unconscious is asking the conscious mind to *make a plan*. The unconscious mind apparently can't do this on its own, so it nags the conscious mind to make a plan with specifics like time, place, and opportunity. Once the plan

done next, and under what circumstances. But once you make that plan—once you put the meeting memo in the tickler file for Wednesday, once you specify the very next action to be taken on the project—you can relax. You don't have to finish the job right away. You've still got 150 things on the to-do list, but for the moment the monkey is still, and the water is calm.

Zero Euphoria

Upon arriving at Drew Carey's office, David Allen

began where he always begins: the collection of *stuff*. This is a broadly encompassing term. Stuff, as defined in *Getting Things Done*, is “anything you have allowed into your psychological or physical world that doesn’t belong where it is, but for which you haven’t yet determined the desired outcome and the next action step.” Or, as Carey defined it, all the crap in his office.

Then came the second phase of the GTD system, the processing of the stuff, when Carey had to decide whether to do it, delegate

it, defer it, or drop it. If something didn't require action, it could be either thrown out or filed away for future reference. Stuff requiring action that was part of a multistep project, like Carey's preparations to emcee a charity benefit dinner honoring Archbishop Desmond Tutu, had to be grouped together in a project list or in a folder on the computer or in a file cabinet. By going through all the paperwork, all the unanswered e-mails, all the other unfinished tasks in his computer or on his mind, Carey identified

dozens of personal and business projects, which was typical. Allen's clients usually have between thirty and one hundred projects, each with at least a couple of tasks, and they spend a full day or two to complete the great initial purging and sorting and processing. After Carey identified the projects, he had to single out the specific Next Action for each project. What was the very next thing to do for the charity dinner? As Carey worked through all the stuff, Allen sat in his office all day long.

“He’d honestly sit there and watch me do my-emails,” Carey says. “Whenever I’d get stuck he’d say, ‘What’s going on?’ And I’d tell him, and he’d go, ‘Do this.’ And I would do it. He was very decisive about it. There would be only a few times when he’d say, ‘It could be a this or a that. What are you going to do with it?’” Allen taught him to set up separate folders for phone calls and e-mails, to put vague projects in a “Someday/Maybe” folder, and to follow the Two-Minute Rule: If something

will take less than two minutes, don't put it on a list. Get it out of the way immediately.

“Before, I'd see a pile of papers and wouldn't know what the hell was in them and just be like, *Oh, my God,*” Carey says. “The day I got to zero, which is GTD talk for having nothing in your in-box—no phone messages, no e-mails, nothing, not a piece of paper—when I got to that point, I felt like the world got lifted off my shoulders. I felt like I had just come out of meditating in the

desert, not a care in the world. I just felt euphoric.”

Since that day, with the help of monthly visits from Allen, Carey says he has kept fairly close to zero. He falters sometimes, and if he’s been traveling, stuff will build up, but at least he knows what’s there and feels sure he’ll get to it. He can read a book or take a yoga class without feeling guilty. With the mundane out of the way, he can focus on the important stuff, like writing comedy. “There’s nothing worse than sitting down to write when you’ve got a blinking phone and a

pile of letters and a ton of e-mails in your face,” Carey says. “You’re not going to do your very best work. But if you know the other stuff is taken care of, you can concentrate on your writing. You can be more creative.” Ultimately, that’s the selling point of GTD in corporate offices and far beyond. That’s the reason that comedians and artists and rock musicians rhapsodize about Allen’s lists and folders.

“Whether you’re trying to garden or take a picture or write a book,” Allen says, “your ability to make

4: DECISION FATIGUE

Man who man
would be,
Must rule the
empire of
himself; in it
Must be
supreme,
establishing his
throne

On vanquished
will, quelling the
anarchy

Of hopes and
fears, being
himself alone.

f. Close the Web page, turn on C-SPAN, and take a cold shower.

Not a very tough call, is it? So why did Eliot Spitzer have such a tough time with it when he was the governor of New York? By choosing c (Kristen), he joined the long list of famously shrewd politicians and corporate executives who have destroyed their careers with an inexplicably dumb decision. Spitzer, who had targeted prostitution in his days as a prosecutor, not only arranged a hotel tryst with Kristen but even sent

subconsciously want to sabotage his career? Deep down, did he feel unworthy? Or, after all the perks of power, did he simply feel entitled to whatever he wanted?

Any of those answers might or might not be right, and we won't try to sort them out or psychoanalyze Spitzer. But we can suggest one other factor that certainly contributed to his downfall—and to the mistakes that have wrecked the careers and families of so many other executives. When Spitzer hired a

Yet few people are even aware of it. When asked whether making decisions would deplete their willpower and make them vulnerable to temptation, most people say no. They don't realize that decision fatigue helps explain why ordinarily sensible people get angry at their colleagues and families, splurge on clothes, buy junk food at the supermarket, and can't resist the car dealer's offer to rustproof their new sedan.

This hazard was first identified at Baumeister's

ordinarily considered rude for anyone beyond the Santa Claus years to demand specific gifts, listing your wishes on a bridal registry has been rationalized as a social ritual that eases the stress on everyone. The guests don't have to bother shopping; the couple doesn't have to worry about ending up with thirty-seven soup tureens and no ladles. But that doesn't mean it's stress-free, as Twenge discovered on the evening that she and her fiancé sat down with the store's wedding

idea. They remembered that a nearby department store was going out of business and holding a clearance sale, which made plenty of products affordable on the laboratory budget. The researchers went shopping and filled their car trunks with simple products—not exactly posh wedding gifts, but sufficiently appealing to college students.

For the first experiment, participants were shown a table loaded with these products. They were told they would get to keep one at the end of the

experiment. Then some of the students were told to make choices, which would supposedly determine which product they eventually received. They went through a series of choices, each time between two items. Would they prefer a pen or a candle? A vanillascented candle or an almond-scented one? A candle or a T-shirt? A black T-shirt or a red T-shirt? Meanwhile, a control group—call them the nondeciders—spent an equally long period of time contemplating all these same products without

all those choices had apparently sapped their willpower, and the effect showed up again in other decision-making exercises.

In some experiments, students had to go through a college catalog and choose courses for themselves. In another experiment, designed to be immediately relevant to students enrolled in a psychology course, they had to make a series of choices about how they wanted their course to be taught for the remainder of the semester: which films to watch, how many

Compared with the nondeciders, who'd spent just as much time evaluating the same kind of information without making choices, the deciders gave up sooner on the puzzles. Instead of using their time to practice for the math test, they goofed off by reading magazines and playing video games.

As the ultimate real-world test of their theory, researchers went into that great modern arena of decision making: the mall. Shoppers in a suburban mall were interviewed

level, the results of all these experiments raised a new question: What kinds of decisions deplete the most willpower? Which choices are the hardest?

Crossing the Rubicon

Psychologists distinguish two main types of mental processes, automatic and controlled. Automatic processes, like multiplying 4 times 7, can be done without exertion. If someone says “4 times 7,” 28 probably pops into your head whether you want it to or not—that’s why the

process is called automatic. In contrast, computing 26×30 requires mental effort as you go through the steps of multiplying to come up with 780. Difficult mathematical calculations, like other logical reasoning, require willpower as you follow a set of systematic rules to get from one set of information to something new. You often go through steps like these in making a decision, through a process that psychologists call the Rubicon model of action phases, in honor of the river that separated Italy from the Roman province

more felicitously: “The die is cast.”

The whole process could deplete anyone’s willpower, but which part is most fatiguing? Could the depletion be due mainly to all the calculations before the decision? By this point, Twenge and several other researchers had been depleted by this long-running project, but the reviewers who decided whether the work could be published in the field’s top journal wanted more answers. Kathleen Vohs, a veteran “closer” who knew how to bring embattled

projects to final success, took over and masterminded the project through its final stages. She designed an experiment using the self-service sales site of the Dell computer company. At dell.com, shoppers could research and configure their own customized computer by choosing the size of the hard drive, the type of screen, and a series of other features. In the experiment, participants went through some of the same processes as Dell's shoppers (except that

nobody bought a computer at the end).

By random assignment, each participant in the study was given one of three tasks. Some were told to look at several features relevant to a computer but not make a decision. They were instructed to think about the options and prices and to form preferences and opinions, but not to make a definite selection. The purpose of this condition was to duplicate the predecision thinking without the actual deciding.

Another group was handed a list of selections and told to configure the computer. They had to go through the laborious, step-by-step process of locating the specified features among the arrays of options and then clicking on the right ones. The purpose was to duplicate everything that happens in the postdecisional phase, when the choice is implemented. The third group had to choose which features they wanted on their customized computers. They didn't simply ponder

options or implement others' choices. They had to cast the die, and that turned out to be the most fatiguing task of all. When self-control was measured afterward by asking people to solve as many anagrams as they could, the people who had actually made decisions gave up sooner than the others. Crossing the Rubicon appeared to be tough mental work, whether it involved deciding the fate of an empire or the size of a computer drive.

But suppose the choice involved options easier and

more appealing than starting a civil war or contemplating the innards of a computer. Suppose it involved a process that you found entertaining. Would those choices still deplete willpower? Researchers investigated by conducting another version of the bridal-registry experiment, but this time the subjects included people with widely assorted attitudes toward the task. Some of the young men and women were much more enthusiastic than Jean Twenge at the prospect of choosing wedding gifts for

themselves. They said they looked forward to making the choices, and afterward they reported that they enjoyed the experience. Meanwhile, other subjects in the same experiment utterly detested the whole process of picking china and silverware and appliances.

As you might expect, the process wasn't as depleting for the ones who enjoyed it—but only up to a point. If the participants were given a short list of choices to be made in four minutes, then the ones who liked picking gifts could zip through

The Judge's Dilemma (and the Prisoner's Distress)

Four men serving time in Israeli prisons recently asked to be released on parole. Their cases were heard by a board, consisting of a judge, a criminologist, and a sociologist, that periodically met for a daylong session to consider prisoners' appeals. There were certain similarities to the four cases. Each of the prisoners was a repeat offender, having served a previous term in prison for a separate offense. Each

serving a 16-month sentence for assault.

Case 3 (heard at 3:10 P.M.): A Jewish-Israeli male serving a 16-month sentence for assault.

Case 4 (heard at 4:25 P.M.): An Arab-Israeli male serving a 30-month sentence for fraud.

There's a pattern to the board's decisions, but it's not one you'll find by looking at the men's ethnic backgrounds or crimes or sentences. In looking for it, you might keep in mind a long-running debate about the nature of the legal system. One traditional

Case 1, who appeared at 8:50 A.M., the second case of the day—and he did in fact receive parole. But even though the prisoner in Case 4 was serving the same sentence for the same crime—fraud—the odds were against him when he appeared (on a different day) at 4:25 P.M. Like most of the other prisoners who appeared late in the afternoon, he was denied parole.

The change from the morning to the afternoon didn't occur at a steady rate, though. There were other striking patterns

during the day. In midmorning, usually a little before 10:30, the parole board would take a break, and the judges would be served a sandwich and a piece of fruit. That would replenish the glucose in their bloodstreams. (Remember the studies about how children who skipped breakfast would suddenly start to behave and learn better after the midmorning snack?) The prisoners who happened to appear just before the break had only about a 15 percent chance of getting

isolated phenomenon. It occurs naturally in all kinds of situations. The link between willpower and decision making works both ways: Decision making depletes your willpower, and once your willpower is depleted, you're less able to make decisions. If your work requires you to make hard decisions all day long, at some point you're going to be depleted and start looking for ways to conserve energy. You'll look for excuses to avoid or postpone decisions. You'll look for the easiest and

safest option, which often is to stick with the status quo: Leave the prisoner in prison.

Denying parole can also seem like the easier call to the judge because it leaves more options open: The judge retains the option of paroling the prisoner at a future date without sacrificing the option of keeping him securely in prison right now. Part of the resistance against making decisions comes from the fear of giving up options. The more you give up by deciding, the more you're afraid of cutting off

but were also the pickiest in listing the attributes of their desired partners. The average personal ad in *New York* magazine listed 5.7 criteria required in a partner, significantly more than second-place Chicago's average (4.1 criteria) and about twice the average for the other three cities. As one woman in New York put it in her ad: "Not willing to settle? Neither am I!" She claimed to be someone who "loves all NY has to offer," but her definition of "all" did not include any male New Yorkers who were not

Lazy Choices

To compromise is human. In the animal kingdom, you don't see a lot of protracted negotiations between predators and their victims. The ability to compromise is a particularly advanced and difficult form of decision making—and therefore one of the first abilities to decline when our willpower is depleted, particularly when we take our depleted selves shopping.

Shoppers face continual compromises between quality and price, which don't always change in the

same proportions at the same time. Often, price goes up much faster than quality. A wine selling for \$100 a bottle is usually better than a \$20 wine, but is it five times better? Is a \$1,000-per-night hotel room five times nicer than a \$200-per-night room? There's no objectively correct answer—it all depends on your taste and your budget—but the relative paucity of \$100 wines and \$1,000 hotel rooms indicates that most people don't find the extra quality worthwhile. Above a certain point, increases in

easy strategy if someone else is paying).

Decision fatigue leaves us vulnerable to marketers who know how to time their sales, as was demonstrated by Jonathan Levav, the Columbia psychologist, in experiments involving tailored suits and new cars. The idea for these experiments, like Jean Twenge's, also happened to come during the preparations for a wedding. At his fiancée's suggestion, Levav visited a tailor to have a bespoke suit made and began going through

to use in a couple of experiments conducted with Mark Heitmann of Christian-Albrechts University in Germany, Andreas Hermann at the University of St. Gallen in Switzerland, and Sheena Iyengar of Columbia. One involved asking MBA students in Switzerland to choose a bespoke suit; the other was conducted at German car dealerships by discreetly observing customers ordering options for their new sedans. The car buyers—and these were real customers spending their own money—had to

enjoying the shopping experience less than if they started off with easier decisions before moving on to the tough ones.

Sometimes shoppers get so tired of making choices that they simply stop buying, but clever marketers can often find ways to exploit decision fatigue, and you don't have to go any farther than your supermarket to see their strategy. After you navigate the aisles and deplete your willpower by choosing among thousands of nutritious foods and practical products, what

greet you as you wait in line at the cash register? Gossipy tabloids and chocolate bars. Not for nothing are they called impulse purchases. It's no accident that the candy is presented just at the moment when your impulse control is weakest—and just when your decision-fatigued brain is desperate for a quick hit of glucose.

Choose Your Prize

Suppose, as a reward for finishing this chapter, we offered you a choice of two

immediate financial emergency and no other source of funds, you'd be better off turning down the \$100 in quick cash and waiting a month to receive \$150. Hence, in general, the right answer to the payment question is to take the larger, later reward. Being able to resist short-term temptations in favor of long-term payoffs is the secret not just to wealth but to civilization itself. It took singular willpower for the first farmers to go out and plant seeds instead of treating themselves to an immediate meal.

versus larger-but-later rewards.

Another reason for choosing the quick cash emerged in an ingenious study by Margo Wilson and Martin Daly of McMaster University. These

evolutionary psychologists began the experiment by asking young men and women to choose between a check dated tomorrow versus a check for a larger amount that could be cashed on a later date. Then, ostensibly as part of an experiment to measure preferences, the subjects were asked to rate

photographs of people and cars. The photos of people were taken from hotornot.com, the Web site where people submit photos of themselves and are then rated for attractiveness on a 10-point scale. Some of the young men and women saw photos of the opposite sex who had already been rated on the Web site as very hot (above 9); some of the participants saw not-hot photos (around 5). Other participants rated pictures of cars, with some seeing hot cars and others looking at clunkers.

Then everyone was asked once again to make choices between getting an immediate reward versus a larger reward later, and the researchers compared the answers to see if looking at the photos had changed any of the subjects' preferences for rewards. The car pictures had no effect on the young men and only a slight effect on some of the women: Women who saw the hot cars became a little more likely to opt for the quick reward. One might speculate that seeing the shiny sports car made the

young women a bit more eager for instant gratification, but the change was so small that the researchers declined to draw any conclusions from it. The women in the experiment were even less influenced by looking at photos of men. Their decision making didn't change after looking at either the hot men or the not-so hot men. Nor did the men's decision making change after looking at pictures of not-hot women.

But there was one group that changed dramatically: Men who saw photos of hot

prolific patriarch like Genghis Khan, there were lots of other men whose genetic lines died out.) Men today are therefore descended from the minority of men who managed to reproduce, and their brains seem primed for a quick response to any opportunity to improve their reproductive odds. Other studies have shown that the sight of an attractive woman (but not an unattractive woman) activates the male brain's nucleus accumbens, which is connected to the part of the brain activated by

rewards like cash and sweet-tasting foods. In the past, there might well have been some evolutionary advantage in going for a quick display of resources upon seeing an attractive female; today, it might still be useful on occasions, especially if you think the woman's decision might be affected by your owning a hot car. Clearly that's the strategy of marketers of upscale cars and other goods. Advertising agencies figured out long ago that men are more likely to splurge on a luxury product

5: WHERE HAVE ALL THE DOLLARS GONE?

The Quantified Self Knows

I have never known a man who was too idle to attend to his affairs & accounts, who did not get into difficulties; & he who habitually is in money difficulties, very rarely keeps

Not long ago, a spendthrift sought help for his credit card debt from a team of researchers who called themselves neuroeconomists. They were monitoring the brains of people in the act of shopping—or at least as close to that as you can get inside a functional MRI machine in a lab at Stanford University. The researchers measured activity in the brain's insula region as people contemplated spending money on gadgets, books, and assorted tchotchkes.

This brain region ordinarily lights up when you see or hear something distasteful, and that's just what happened when the tightwads in the study saw the prices of the items. But when a typical spendthrift went shopping for the same items, the insula didn't register the same sort of disgust—not even when the brain considered spending a good chunk of hard-earned money on a color-changing “mood clock.”

The one bit of hope for fiscal rectitude came in a separate experiment conducted at the request of

this one particularly remorseful spendthrift. In the interest of full disclosure, we should note that this spendthrift was Tierney, before Baumeister began teaching him about self-control. Sure enough, the MRI test confirmed his spendthrift tendencies by revealing just how blasé his insula remained as he prepared to spend money for gizmos he didn't need. But then the researchers tried an intervention. They flashed an image of Tierney's most recent Visa bill—and got a reaction! At last, there was some sign of

disgust: The researchers reported a “little spot of insula activation” when he contemplated the unpaid balance of \$2,178.23. Apparently he wasn’t completely brain-dead when it came to money.

That was reassuring, but how could this finding be put to use? How, short of having Stanford researchers follow him through a mall waving his Visa bill, could a spendthrift be forced to contemplate the effects of his spending? The obvious solution was for him to set a budget and monitor his

sat down to catch up with his finances he faced the prospect of categorizing hundreds of transactions. It occurred to him that there must be a better way to spend his time. Why couldn't a computer do this for him? Why couldn't he outsource this job? Wasn't this the kind of grunt work meant for silicon chips? The result of this was a company, Mint.com, so successful that within two years it was sold for \$170 million to Intuit, the maker of Quicken software.

Mint's computers are now tracking the finances

awareness if it makes you feel miserable?

I'm Self-aware, Therefore I . . . ?

In the 1970s, social psychologists studying subjects in self-conscious situations began to understand why self-awareness developed in humans. The researchers who pioneered these procedures, Robert Wicklund and Shelley Duval, were initially mocked by colleagues who thought these studies quaint and not necessarily

inevitably, *Have I gained weight?* Self-awareness always seemed to involve comparing the self to these ideas of what one might, or should, or could, be.

The two psychologists came up with a word for these ideas: *standards*. Self-awareness involves a process of comparing yourself to standards. Initially the assumption was that the standards were usually ideals— notions of what would constitute perfection. This led to the conclusion that self-awareness would nearly always be

unpleasant, because the self is never perfect. Wicklund and Duval maintained that view for several years, arguing that self-awareness is inherently unpleasant. It sounded plausible in some ways—particularly if you were trying to understand teenagers' angst—but it seemed odd from an evolutionary standpoint. Why would our ancestors have kept holding themselves to impossible standards? What was the evolutionary advantage of feeling bad? Moreover, the notion that self-awareness

conscious enough to do the right thing.

The link between self-awareness and self-control was also demonstrated in experiments involving adults and alcohol. Researchers found that one of the chief effects of drinking was to reduce people's ability to monitor their own behavior. As drinkers' self-awareness declines, they lose self-control, so they get into more fights, smoke more, eat more, make more sexual blunders, and wake up the next day with many more regrets. One of the

The Quantified Self

Anthony Trollope believed it unnecessary—and inadvisable—to write for more than three hours a day. He became one of the greatest and most prolific novelists in history while holding a full-time job with the British Post Office. He would rise at five-thirty, fortify himself with coffee, and spend a half hour reading the previous day's work to get himself in the right voice. Then he would write for two and a half hours, monitoring the time with a watch placed on the table. He forced himself to

produce one page of 250 words every quarter hour. Just to be sure, he counted the words. “I have found that the 250 words have been forthcoming as regularly as my watch went,” he reported. At this rate he could produce 2,500 words by breakfast. He didn’t expect to do so every single day—sometimes there were business obligations or fox hunts—but he made sure each week to meet a goal. For each of his novels, he would draw up a working schedule, typically planning for 10,000 words

computer-use statistics provided in the paragraph above were compiled by RescueTime by averaging the behavior of its hundreds of thousands of users. The founder of RescueTime, Tony Wright, was surprised to see that nearly a third of his day was spent on what he calls “the long tail of information porn”—visits to Web sites unrelated to his chief work. The typical visit was only a couple of minutes, but together they consumed two and a half hours a day.

This sort of tracking sounds Orwellian to some people, but it's part of one of the fastest-growing industries in Silicon Valley. The popularity of smartphones and other devices means that people are spending more and more time connected, and increasingly they're using connectivity to track their behavior: what they eat, how far they walk, how long they run, how many calories they burn, how their pulses vary, how efficiently they sleep, how quickly their brains operate, how their moods

change, how often they have sex, what affects their spending, how often they call their parents, how long they procrastinate.

In 2008, Kevin Kelly and Gary Wolf created a Web site called Quantified Self, or QS, catering to users of self-regulation technology. The QS movement is still small and heavily geeky, but already it has spread far from Silicon Valley, and devotees in cities around the world are convening—in person—to talk gadgets, share data, and encourage one another.

Esther Dyson, the famously prescient Internet guru and investor, sees the Quantified Self movement as both a smart financial investment and virtuous public policy: a revolutionary new industry that will flourish by selling what's good for you. Instead of paying doctors and hospitals to repair your body, you can monitor yourself to avoid illness. Instead of heeding marketers' offerings of fast foods and instant pleasures, you can set up your life so that you're bombarded with messages

promoting health and conscientiousness. “So far, marketers have been really effective at selling goods and other things that undermine our willpower,” Dyson says. “We need to apply those techniques to strengthen it.”

Dyson has always been disciplined herself—she’s been swimming an hour every day for decades—but she finds it even easier now that she’s monitoring herself with new electronic sensors like the Fitbit clip, the BodyMedia armband, and the Zeo “sleep coach” headband. By measuring

more sleep, and my sleep number would look better in the morning. In many ways, it frees me to do the right thing because I can blame my behavior on the numbers.”

Thanks to companies like Mint.com, it's easier than ever for people to follow Charles Darwin's advice about tracking finances, but these new tools are doing more than just the grunt work of monitoring behavior. Keeping track is the first step, but it's not necessarily enough. Thomas Jefferson was astonishingly

your friends. This quantifies how your short-term behavior affects the long-term goals so you have a chance of actually budgeting in a way that makes a difference.”

No one knows exactly how well this works yet, because Mint is a commercial operation, not a controlled experiment. But there are already some encouraging signs, as we found when we asked the Mint research staff to look for broad trends in people’s spending habits before and after they joined Mint. It wasn’t easy to isolate

Mint's effects against the larger background trend taking place between 2008 and 2010: a general increase in spending by everyone as the economy slowly improved after the panic of 2008. Still, the data—culled from two billion transactions of three billion anonymous users—showed some clear benefits of monitoring. For the great majority (80 percent) of people, the upward trajectory of their spending was tempered after they joined Mint and began monitoring their transactions. And most

people's spending was further tempered if they used the information to set up budgets and goals on Mint. The biggest effects were observed in people's spending on groceries, restaurants, and credit card finance charges—some very sensible categories for cutting back.

Some people are so horrified to see their spending totals that they vow to take drastic actions right away, but Mint's founder advises a gradual approach. "If you cut too hard and too fast, you'll never stick with it and

Not-So-Invidious Comparisons

Once you've taken the first two steps in self-control—setting a goal and monitoring your behavior—you're confronted with a perennial question: Should you focus on how far you've come or how much remains to be done? There's no simple, universal answer, but it does make a difference, as demonstrated in experiments by Ayelet Fishbach of the University of Chicago. She and a Korean colleague, Minjung

ambition, focus instead on the road ahead.

Either way, you can gain additional benefits by comparing yourself with others, and that's never been easier to do, thanks to the abundance of networked data. Mint will tell you how your rent and restaurant bills and clothing purchases compare with your neighbors' or with the national average. RescueTime will tell give you a percentile ranking of your productivity—or your aimless Web surfing—in relation to the average

promptly cut back on their use of electricity.

These sorts of comparisons become even more powerful when you start openly sharing your data with others. As we researched this book, we heard plenty of stories about people who benefited from monitoring themselves, like using pedometers to keep track of their daily steps. But the most enthusiastic walkers were the ones who shared each day's tally with a few friends. They were applying a sound psychological principle that was

That way, when his mood darkens, his friends see the data and get in touch with him.

“The digital tools and the data are just catalysts for people to motivate themselves and one another,” Dyson says. “You find the model that works best for you. Maybe you compare numbers with your friends because you don’t want to be ashamed in front of them. Or you don’t want to let down the team. Different people are motivated in different ways.”

If you're a spendthrift, you can try to control yourself by letting a tightwad friend be alerted when you start a spending binge. And if you both study your patterns of spending, you can start to understand what causes the binges. Do you make impulsive purchases when you're in a good mood and your willpower is low? Or are you one of the compulsive shoppers who buy when they're feeling depressed or insecure. If so, you're suffering from what psychologists call misregulation, the

mistaken belief that buying something will regulate your mood for the better, when in fact you'll just feel worse afterward.

Even if you're not a spendthrift, you could still benefit from tracking your spending and comparing it with what your neighbors are doing. You might discover that you're an extreme tightwad—not the worst problem to have, but still a problem, and one that's surprisingly common. Behavioral economists have found that neurotic penny-pinching may be even more

prevalent than neurotic overspending, affecting some one in five people. Brain scans have similarly pinpointed the culprit: an insula that reacts with hyperactive horror at the prospect of parting with cash.

The result is a condition that researchers call hyperopia (the opposite of myopia), in which you focus too much on the future at the expense of the present. Such penny-pinching can waste time, alienate friends, drive your family crazy, and make you miserable. The studies

6: CAN WILLPOWER BE STRENGTHENED?

*(Preferably Without
Feeling David Blaine's
Pain)*

The more the
body suffers, the
more the spirit
flowers.

—David Blaine's
philosophy, borrowed
from St. Simeon Stylites,
a fifth-century ascetic
who lived for decades

*atop a pillar in the
Syrian desert*

We wish to consider a scientific explanation for David Blaine.

We don't mean an explanation for *why* Blaine does what he does. That's impossible, at least for psychologists, and probably for psychiatrists, too. When he is not doing his famous magic tricks, Blaine works as a self-described endurance artist, performing feats involving willpower instead of illusion. He stood for

thirty-five hours more than eighty feet above New York's Bryant Park, without a safety harness, atop a round pillar just twenty-two inches wide. He spent sixty-three sleepless hours in Times Square encased in a giant block of ice. He was entombed in a coffin with six inches of headroom for a week, during which he consumed nothing except water. He later went on to conduct another water-only fast, whose results were published in the *New England Journal of Medicine*: a loss of fifty-

immediately give up when everything went wrong during his attempt to break the world record for breath holding? He'd spent more than a year preparing for this feat by learning to fill his lungs with pure oxygen and then remain immobile under water, conserving oxygen by expending as little energy as possible. Blaine could relax so completely, both mentally and physically, that his heart rate would drop to below fifty beats per minute, sometimes below twenty. During a practice session at a swimming pool

he heard the audience cheer and realized that he'd broken the old record of 16:32. He looked at the clock and held on until the next minute, emerging from the water with a new Guinness record of 17:04.

“This was a whole other level of pain,” he said shortly afterward. “I still feel as if somebody hit me in the stomach with the hardest punch they could.”

So how did he will his way through it?

“That’s where the training comes in,” he said. “It gives you the confidence

headache for the rest of the day. Those daily breathing drills got his body used to the pain of carbon dioxide buildup. But just as important were the other kinds of exercises he'd been conducting for more than three decades, since the age of five. He had long been a believer in the notion that willpower is a muscle that can be strengthened. He picked up this idea partly through reading about the Victorian training of his childhood hero, Houdini, and partly by trial and error.

to step on it. And not just step on it—I have to hit the head of the biker perfectly with my foot, so that it fits right under my sneaker. Little things like that annoy anyone running with me, but I believe if I don't do them, I won't succeed.”

But why believe that? Why would stepping on the drawing of a biker help you hold your breath longer?

“Getting your brain wired into little goals and achieving them, that helps you achieve the bigger things you shouldn't be able to do,” he said. “It's not just practicing the

specific thing. It's always making things more difficult than they should be, and never falling short, so that you have that extra reserve, that tank, so you know you can always go further than your goal. For me that's what discipline is. It's repetition and practice."

These exercises certainly appear to work for Blaine, but his endurance feats hardly constitute scientific evidence—or a model for anyone else. David Blaine is about as far as you can get from a random sample. A child who voluntarily

for anyone else, you would need to test them with people who were not endurance artists—the sort of people who would never regard a saint living on a pillar as a role model.

Willpower Workouts

To social scientists, the idea of strengthening willpower didn't seem very promising at first glance. After all, the ego-depletion experiments in Baumeister's lab showed that exertions of willpower left people with less self-control. Choosing radishes

experiments to show ego depletion, discussed strength-building exercises with his advisers, Baumeister and Dianne Tice. Because no one had any idea what might work, they decided on a scattershot approach. They would assign different participants different exercises, and see if any new strength developed. One obvious problem was that some people would start out with more self-control than others, just as some athletes would start out with bigger muscles and more stamina. To

control for that, the researchers would have to do the equivalent of measuring individual changes in muscle power and stamina. They would first bring college students into the lab for an initial baseline test of self-control, followed by a quick depleting task to see how much it declined. Then everyone would be sent home to perform some kind of exercise on their own for a couple of weeks, followed by another round of tests in the lab. Different exercises were chosen to test various notions of what

was involved in “character building”—or, more precisely, which mental resources had to be fortified. Did acts of self-control deplete you because of the energy needed to override one response in favor of another? Or was it the energy required to monitor your behavior? Or the energy to alter your state of mind?

One group of students was sent home with instructions to work on their posture for the next two weeks. Whenever they thought of it, they were to

they returned to the lab after two weeks, their scores on the self-control tests went up, and the improvement was significantly higher by comparison with a control group (which did no exercises of any kind during the two weeks). This was a striking result, and with careful analyses of the data, the conclusions became clearer and stronger. Unexpectedly, the best results came from the group working on posture. That tiresome old advice—"Sit up straight!"—was more useful than anyone

had imagined. By overriding their habit of slouching, the students strengthened their willpower and did better at tasks that had nothing to do with posture. The improvement was most pronounced among the students who had followed the advice most diligently (as measured by the daily logs the students kept of how often they'd forced themselves to sit up or stand up straight).

The experiment also revealed an important distinction in self-control between two kinds of

strength: power and stamina. At the first lab session, participants began by squeezing a spring-loaded handgrip for as long as they could (which had been shown in other experiments to be a good measure of willpower, not just physical strength). Then, after expending mental energy through the classic try-not-to-think-of-a-white-bear task, they did a second handgrip task to assess how they fared when willpower was depleted. Two weeks later, when they returned to the lab after working on their posture,

dominant hand. Right-handed people, in particular, tend to use their right hands for all sorts of things without giving the matter the slightest thought. Making yourself switch to your left hand is thus an exercise in self-control. You can resolve to use your left hand instead of your habitual right hand for brushing your teeth, using a computer mouse, opening doors, or lifting a cup to your lips. If it seems too onerous to do this all day, try it for a set period. Some research studies have assigned people to switch

hands between eight A.M. and eight P.M. This lets people revert to their familiar habits in the evening, when they are already physically tired and mentally depleted from the day's activities. (Note to lefties: This strategy may not be as effective for you, because many left-handed people are actually fairly ambidextrous and have had more practice using their right hands in a world oriented for right-handed people. So using your right hand may not do as much for your willpower: No strain, no gain.)

keep up these techniques for very long. Sticking to arcane exercises that don't offer an obvious reward can be a daunting challenge, as researchers discovered when they followed up on the first willpower-strengthening experiments. The initial results caused great excitement among psychologists, because self-control was one of only two traits known to produce a wide spectrum of benefits, and the other trait, intelligence, had turned out to be quite difficult to improve. Programs like

Head Start boosted intellectual performance while the students were enrolled, but the gains seemed to fade pretty quickly once they left. By and large, there didn't seem to be much you could do to increase the intelligence you were born with. That made self-control seem especially precious, and social scientists set out testing systematic programs for improving it. The result, over the course of a decade, was a mix of successes and flops as researchers discovered the difficulty in

getting people to do the assigned exercises. It wasn't enough to find a workout that could theoretically build willpower. It had to be a workout that worked.

From Strength to More Strength

Some of the most successful strategies were developed by two Australian psychologists, Meg Oaten and Ken Cheng. They generally recruited people who wanted to improve one specific aspect of their lives and could be

students who wanted to improve their study habits. The ones who got the immediate help met with an experimenter to set long-term goals and assignments, and to break down the tasks into smaller steps. Their study plan was coordinated with other obligations (like a side job), and the students kept a study log and diary to monitor progress. Yet another experiment gave people a chance to improve their money management by meeting with an experimenter to draw up a budget and plan ways to

save more money. Besides keeping track of how much they spent and earned, they also kept a log recording their feelings and their struggles not to spend money—how they forced themselves to stay home to avoid the temptations in store windows, or sacrificed vacations to save money, or postponed purchases they would ordinarily have made.

In all the experiments, participants came to the lab from time to time for an exercise that seemed irrelevant to their self-improvement programs.

first time was soon after they arrived at the lab and were fresh. The second came a bit later, after their willpower had been depleted.

The pattern of results was largely the same in all these experiments. As the weeks went by, the people who regularly exercised self-control in doing physical workouts, studying, or money management got progressively better at ignoring Eddie Murphy's comedy routine and tracking the moving squares. In particular, the

main improvements were found in resisting the effects of depletion (that is, on the last self-control test administered at each lab session). Thus, exercise increased people's stamina, allowing them to hold out against temptations even when their mental resources had been depleted.

Not surprisingly, they also advanced toward their goals. Those in the fitness program got fitter; those working on study discipline got more schoolwork done; the people in the money-management program

saved more money. But—and here was a truly pleasant surprise—they also got better at other things. The students who did the study-discipline program reported doing physical workouts a bit more often and cutting down on impulsive spending. Those in the fitness and money-management programs said they studied more diligently.

Exercising self-control in one area seemed to improve all areas of life. They smoked fewer cigarettes and drank less

alcohol. They kept their homes cleaner. They washed dishes instead of leaving them stacked in the sink, and did their laundry more often. They procrastinated less. They did their work and chores instead of watching television or hanging out with friends first. They ate less junk food, replacing their bad eating habits with healthier ones. You might think that people who start doing physical workouts would naturally start eating better, but in fact the reverse has often been observed in other studies:

Once you start exercising, you feel virtuous and therefore entitled to reward yourself with high-calorie treats. (That's an example of the "licensing effect," when you act as if one good deed gives you license to sin.) But in this experiment, the group of exercisers didn't yield to that temptation. Nor did the group of budget-conscious people yield to the predictable temptation to cut down on their grocery bills by passing up the more expensive fresh foods and other healthy fare in favor of cheaper

relationship partners, such as slapping or punching them or attacking them with a weapon, in various situations, such as being “disrespected” by the partner or walking in on the partner having sex with someone else. Then the researchers had the participants in the study perform willpower exercises for two weeks, except for a control group. After the two weeks, the ones who did the exercises reported fewer tendencies to behave violently when provoked by a loved one, both in comparison with

Without realizing it, people gained a wide array of benefits in areas of their lives that had nothing to do with the specific exercises they were performing. And the lab tests provided an explanation: Their willpower gradually got stronger, so it was less readily depleted. Focusing on one specific form of self-control could yield much larger benefits, just as self-experimenters from Ben Franklin to David Blaine had maintained. The experiments showed that you didn't have to start off with the exceptional self-

control of a Franklin or a Blaine to benefit: As long as you were motivated to do some kind of exercise, your overall willpower could improve, at least over the course of the experiment.

But what about afterward? As remarkable as the results were, the experiments had lasted only a few weeks or months. How hard would it be to keep up the self-discipline indefinitely?

Here, once again, the case of David Blaine is instructive.

The Toughest Stunt of All

Before we told David Blaine about the scientific research into willpower, we asked him which of his feats had been the most difficult. This was not a simple choice for him, understandably. So many ordeals, so many varieties of agony. The seventeen-minute breath-hold on *Oprah* was awful but brief. For sustained terror, there was the last part of his thirty-five-hour stint standing on the pillar, when he was fighting hallucinations and the urge

to nod off (and fall eight stories to his death). For prolonged pain, there were the forty-four days without food in the Plexiglas box above the Thames. Not only did he have to watch people below eating merrily away, but he also had to look at a giant advertisement for batteries with the slogan “When Willpower Isn’t Enough.” He tried to appreciate the humor of the ad, but that got progressively difficult. “By the thirty-eighth day, my mouth was tasting like sulfur because my body was eating its own organs,”

eight hours were the worst state I've ever been in. To go through something that horrific and not quit—that took something that was beyond me.”

Yes, that did indeed sound like the toughest feat of them all. But then something else occurred to Blaine once he heard about the experiments by Baumeister and other scientists. After learning of the wide-ranging benefits of the willpower-strengthening exercises, Blaine nodded and said, “That makes perfect sense. You’re building discipline.

to train again, when I get really serious, I'll drop about three pounds a week, and that stays consistent, so I'll drop twelve pounds a month. So in five months, I'm completely transformed and my discipline levels are really high. It's amazing. I have self-discipline in work, but I have none in my life sometimes."

Hanging out with sharks, holding his breath for seventeen minutes, freezing for sixty-three hours and ending up in purgatory—all that he could handle, but the

7: OUTSMARTING YOURSELF IN THE HEART OF DARKNESS

Self-control is
more
indispensable
than gunpowder.

—Henry Morton Stanley

In 1887, Henry Morton Stanley went up the Congo River and inadvertently started a disastrous experiment. This was long after his first journey deep

into Africa, as a journalist in 1871, when he'd become famous by finding a Scottish missionary and reporting the first words of their encounter: "Dr. Livingstone, I presume." Now, at age forty-six, Stanley was a veteran explorer leading his third African expedition. As he headed into an uncharted expanse of rain forest, he left part of the expedition behind in a riverside camp to await further supplies. The leaders of this Rear Column, who came from some of the most prominent families in

Britain, proceeded to become an international disgrace.

Those men, along with a British soldier and doctor who were left in charge of a fort along the route, lost control once Stanley was no longer there to command them. They refused medical treatment to sick natives and allowed Africans under their command to perish needlessly from disease and poisonous food. They kidnapped and bought young African women to keep as sex slaves. When one of the very young

concubines cried to be returned to her mother and father, she was ignored; when another escaped, she was retrieved and trussed to prevent another escape. The British commander of the fort savagely beat and maimed Africans, sometimes stabbing them with a sharp steel cane, sometimes ordering men to be shot or flogged almost to death for trivial offenses. Most of his officers raised no objection. When some Pygmies living near the British fort—a mother and several children—were caught stealing food, parts

appreciated the dangers of the wilderness, but he didn't regard them as insuperable.

For while the Rear Column was going berserk, Stanley was maintaining discipline in a much wilder setting. He and the forward portion of the expedition spent months struggling to find a way through the dense Ituri rain forest. They suffered through torrential rains and waist-deep mud while fending off incessant swarms of stinging flies and biting ants. They were weakened by continual hunger,

crippled by festering sores and ulcers, incapacitated by malaria and dysentery. They were maimed and killed, and sometimes eaten, by natives who attacked them with poisoned arrows and spears. At one point, several people were dying daily of disease and starvation. Of those who started with Stanley on this trek into "darkest Africa," as he called that sunless expanse of jungle, fewer than one in three emerged with him.

You would be hard-pressed to name any

explorer in history who endured such sustained misery and terror so deep in the wilderness. Perhaps the only expedition as grueling was the previous transcontinental journey by Stanley that established the sources of the Nile and the Congo rivers. Yet Stanley persevered through all the travails, year after year, expedition after expedition. His European companions marveled at his “strength of will.” Africans called him Bula Matari: Breaker of Rocks. The African aides and porters who survived his

from America, and there were jealous rivals eager to fault his exploration tactics, particularly after the scandal of the Rear Column. In the ensuing century, his reputation plummeted as biographers and historians criticized his expeditions and his association in the early 1880s with King Leopold II, the profiteering Belgian monarch whose ivory traders would later provide the direct inspiration for *Heart of Darkness*. As colonialism declined and Victorian character building lost favor, Stanley

This explorer prevailed in the wilderness not by selfishness, not because his will was indomitable, but because he appreciated its limitations and used long-term strategies that psychologists are now beginning to understand.

This new version of Stanley was found, appropriately enough, by Dr. Livingstone's biographer, Tim Jeal, a British novelist and expert on Victorian obsessives. From researching David Livingstone's life, Jeal was suspicious of the conventional Livingstone-

Stanley dichotomy. When thousands of Stanley's letters and papers were unsealed in the past decade, Jeal drew on them to produce a revisionist tour de force, *Stanley: The Impossible Life of Africa's Greatest Explorer*. The acclaimed biography depicts a deeply flawed character who seems all the more brave and humane for his mixture of ambition and insecurity, virtue and fraud. His self-control in the wilderness becomes even more remarkable considering the secrets he was hiding at his core.

The Empathy Gap

If self-control is partly a hereditary trait—which seems likely—then Stanley began life with the genetic odds against him. He was born in Wales to an unmarried eighteen-year-old woman who went on to have four other illegitimate children by at least two other men. He never knew his father. His mother promptly abandoned him to her father, who cared for him until he died when the boy was six. Another family took him in briefly, but

then one of the boy's new guardians took him on a journey. Told he was going to his aunt's home, the confused boy instead ended up inside a large stone building. It was a workhouse, and the adult Stanley would never forget how, in the moment his deceitful guardian fled and the door slammed shut, he "experienced for the first time the awful feeling of utter desolateness."

The boy, who was then named John Rowlands, would go through life trying to hide the shame of the workhouse and the

stigma of his illegitimate birth. After leaving the workhouse at age fifteen and traveling to New Orleans, he began denying his Welsh roots and pretending to be an American, complete with the accent. He called himself Henry Morton Stanley and told of taking the name from his adoptive father, a wonderfully kind and hardworking cotton trader in New Orleans. In the tales he concocted about his adoptive family, Stanley claimed to be raised by parents who taught self-control. The

food, the immorality of supporting international food corporations. The mother kept buying them anyway but then faced another problem. The cookies kept disappearing. Late in the evening, after partaking of natural substances like wine and cannabis, the commune dwellers' willpower was depleted, and their disapproval of corporate junk food was no match for their cravings for Oreos. Some parents have to hide cookies from their children; this mother found that her child was the *only*

person to whom the location could be revealed. The cookies had to be hidden because the grown-ups suffered from the hot-cold empathy gap. They denounced junk food by day without realizing how much they'd want those evil cookies once they were tired and stoned.

In setting rules for how to behave in the future, you're often in a calm, cool state, so you make unrealistic commitments. "It's really easy to agree to diet when you're not hungry," says Loewenstein, a professor at Carnegie

enable you to conserve willpower for those moments when it's indispensable.

Paradoxically, these techniques require willpower to implement, but in the long run they leave you less depleted for those moments when it takes a strong core to survive.

The Ties That Bind

Stanley first encountered the miseries of the African interior at the age of thirty, when the *New York Herald* sent him to find

Livingstone somewhere in the mysterious continent. He spent the first part of the journey slogging through a swamp and struggling with malaria, which left him delirious for a week with what he called “its insane visions, its frenetic brain-throbs & dire sickness.” Then the entire expedition narrowly escaped being massacred during a local civil war. After six months of travel, so many men had died or deserted that, even after acquiring replacements, Stanley was down to thirty-four men, barely a quarter

with stickK.com, a company founded by two Yale economists, Ian Ayres and Dean Karlan, and a graduate student, Jordan Goldberg. It allows you to pick any goal you want—lose weight, stop biting your nails, use fewer fossil fuels, stop calling an ex—along with a penalty that will be imposed automatically if you don't reach it. You can monitor yourself or pick a referee to report on your success or failure. The penalty might simply be a round of e-mails from stickK.com to your designated list of

supporters—friends and relatives, generally, although you could choose some enemies, too. But you can also make it financially costly by setting up an automatic payment from your credit card to charity. For an extra incentive, you can assign the payment to an “anticharity,” which is a group you’d hate to support—like, say, the presidential library of either Bill Clinton or George W. Bush. Not surprisingly, stickK.com’s users seem to be motivated by financial stakes (just as Stanley was—he knew he

had to come up with stories to sell newspapers and books) and by the presence of a referee. People who draw up a contract without a financial penalty or a referee succeed only 35 percent of the time, whereas the ones with a penalty and a ref succeed nearly 80 percent of the time, and the ones who risk more than one hundred dollars do better than those who risk less than twenty dollars—at least according to what is reported to stickK .com, which doesn't independently verify the results. The true success

rate is presumably lower because some referees are reluctant to report failures that would hurt their friends financially. And whatever the success rate, this is obviously a self-selected sample of people already motivated to change, so it's hard to know exactly how much difference the stickK.com contracts make. But the efficacy of contracts with monitors and penalties has been independently demonstrated in a more rigorous offline experiment, conducted by Karlan and other

economists, among more than two thousand smokers in the Philippines who said they wanted to quit.

The economists randomly offered some of these Philippine smokers a commitment contract with a bank, which would give them a weekly opportunity to make a deposit into an account paying no interest. It was suggested that the smokers deposit the amount of money ordinarily spent on cigarettes, but the level was strictly voluntary—each week they could deposit as

regular interest-paying savings account. They not only gave up the chance for interest but also put themselves at risk of losing it all—and indeed, at the six-month mark, more than half of them did end up flunking the test. The urge to smoke was so strong that a majority of them yielded to it even though they knew they'd lose their money.

The good news, though, was that this incentive did help some of the smokers to quit, and they stayed off cigarettes even after passing the six-month test and collecting the money in

their account. At that point, the program officially ended, and the subjects didn't expect to be monitored any further. But the researchers wanted to see how lasting the effects were, so they waited another six months, until the one-year mark, and then surprised all the subjects by asking them to take another urine test. Even though the people no longer had any financial incentive to stay off nicotine, the effects of the program were still evident. Compared with a control group that was offered a

different stop-smoking program, the smokers offered a commitment contract were nearly 40 percent more likely to be nicotine-free after a year. Given an incentive to temporarily restrain their smoking, they were more likely to make a lasting change in their lives. What began as a precommitment turned into something permanent and more valuable: a habit.

The Brain on Autopilot

Imagine, for a moment, that you are Henry Stanley

awaking on a particularly inauspicious morning. You emerge from your tent in the Ituri rain forest. It's dark, of course. It's been dark for four months. Your stomach, long since ruined on previous African expeditions by parasites, recurrent diseases, and massive doses of quinine and other medicines, is in even worse shape than usual. You and your men have been reduced to eating berries, roots, fungi, grubs, caterpillars, ants, and slugs—when you're lucky enough to find them. The closest thing to a good

meal recently was your donkey, which you shot in order to feed the group. The ravenous men ate every part of it, even fighting over the hooves and desperately licking blood on the ground before it seeped into the soil.

Dozens of people were so crippled—from hunger, disease, injuries, and festering sores—that they had to be left behind at a spot in the forest that is grimly being referred to as Starvation Camp. You've taken the healthier ones ahead to look for food, but they've been dropping dead

immediate but small reward rather than waiting for a larger but delayed reward. The messy Web site also elicited lower donations to charity. Charity and generosity have been linked to self-control, partly because self-control is needed to overcome our natural animal selfishness, and partly because, as we'll see later, thinking about others can increase our own self-discipline. The orderly Web sites, like the neat lab rooms, provided subtle cues guiding people unconsciously toward self-

by Baumeister working together with Denise de Ridder and Catrin Finkenauer, two Dutch researchers who led an analysis of a large set of published and unpublished studies on people who scored high in self-control as measured in a personality test. These studies reported experiments involving a variety of behaviors, which the researchers divided into a couple of broad categories: mainly automatic or mainly controlled. The researchers assumed, logically enough,

that people with high self-control would tend to exercise it most noticeably in the behavior they controlled the most. Yet when the results were totaled up in a meta-analysis, just the opposite pattern appeared. The people with high self-control were distinguished by their behaviors that took place more or less automatically.

At first the researchers were baffled. Their results suggested that we don't use self-control on controllable behaviors. How could that be? They checked and

analysis was that self-control was particularly helpful for performance in work and school, while the weakest effects were involved with eating and dieting. Although people with relatively high self-control did a little better at controlling their weight, the effect was much weaker than in other aspects of their lives. (We'll discuss the reason for that disconnect—and the case against dieting—in a later chapter.) Their self-control yielded moderate benefits in helping them to be well adjusted emotionally

(being happy, having healthy self-esteem, avoiding depression) and to get along with their close friends, lovers, and relatives. But the greatest benefits of their self-control showed up in school and in the workplace, confirming other evidence that successful students and workers tend to rely on good habits. Valedictorians are generally not the sort who stay up studying all night just before the big exam—instead, they keep up with the work all semester long. Workers

one sets schedules or tells you what to do, these young professors took a variety of approaches. Some would collect information until they were ready and then write a manuscript in a burst of intense energy, over perhaps a week or two, possibly including some long days and very late nights. Others plodded along at a steadier pace, trying to write a page or two every day. Others were in between. When Boice followed up on the group some years later, he found that their paths had

getting through the pain of childbirth, enduring an injury, dealing with a crisis, resisting the seemingly irresistible temptation, beating the impossible deadline. Those are the feats that remain in memory and make the best stories. Even the most critical biographers of Stanley hailed his bursts of literary productivity on deadline. After finishing that awful trek through the Ituri Forest and returning to civilization, he quickly produced an international bestseller, *In Darkest Africa*. By working from six

But Enough About Me

At age thirty-three, not long after finding Livingstone, Stanley found love. He had always considered himself hopeless with women, but his new celebrity increased his social opportunities when he returned to London, and there he met a visiting American named Alice Pike. She was just seventeen, half his age, and he noted in his diary that she was “very ignorant of African geography, & I fear of everything else.” But he was smitten, and within a month they were engaged.

in knowing that my comrades were all the time conscious that I did my best, and that I was bound to them by a common sympathy and aims. This encouraged me to give myself up to all neighbourly offices, and was morally fortifying.

This talk of “common sympathy” and “neighbourly offices” may sound suspiciously self-serving coming from someone with Stanley’s reputation for aloofness and severity. After all, this was the man renowned for the coldest greeting in

history: “Dr. Livingstone, I presume?” Even Victorians found it ridiculously stiff for two Englishmen meeting in the middle of Africa. But what’s most revealing about the famous line, according to Jeal, is that Stanley never uttered it. The first record of it occurs in Stanley’s dispatch to the *New York Herald*, written well after the meeting. It’s not in the diaries of either man. Stanley tore out the crucial page of his diary, cutting off his account of the encounter just as they were about to greet each other.

in the first place, that self-control is more indispensable than gunpowder, and, in the second place, that persistent self-control under the provocation of African travel is impossible without real, heartfelt sympathy for the natives with whom one has to deal.

As Stanley realized, self-control is not selfish. Willpower enables us to get along with others and override impulses that are based on personal short-term interests. It's the same lesson that Navy SEAL commandos learn

during a modern version of Stanley's ordeals: the famous Hell Week test of continual running, swimming, crawling, and shivering that they must endure on less than five hours' sleep. At least three-quarters of the men in each SEAL class typically fail to complete training, and the survivors aren't necessarily the ones with the most muscles, according to Eric Greitens, a SEAL officer. In recalling the fellow survivors of his Hell Week, he points out their one common quality: "They had the ability to step

outside of their own pain, put aside their own fear, and ask: How can I help the guy next to me? They had more than the ‘fist’ of courage and physical strength. They also had a heart large enough to think about others.”

Throughout history, the most common way to redirect people away from selfish behavior has been through religious teachings and commandments, and these remain an effective strategy for self-control, as demonstrated by research that we’ll discuss later. But what if, like Stanley, you’re

by Kentaro Fujita, of New York University, and his thesis adviser, Yaacov Trope. They used a series of methods to move people's mental processes to either high or low levels. High levels were defined by abstraction and long-term goals. Low levels were the opposite. For instance, people were asked to reflect either on why they did something or on how they did something. "Why" questions push the mind up to higher levels of thinking and a focus on the future. "How" questions bring the mind down to low

concrete, here-and-now focus works against self-control, whereas a broad, abstract, long-term focus supports it. That's one reason why religious people score relatively high in measures of self-control, and why nonreligious people like Stanley can benefit by other kinds of transcendent thoughts and enduring ideals. Stanley always combined his ambitions for personal glory with a desire to be "good," as he'd imagined his dying mother telling him. He found his calling along with Livingstone

This poor body of mine has suffered terribly . . . it has been degraded, pained, wearied & sickened, and has well nigh sunk under the task imposed on it; but this was but a small portion of myself. For my real self lay darkly encased, & was ever too haughty & soaring for such miserable environments as the body that encumbered it daily.

Was Stanley, in his moment of despair, succumbing to religion and imagining himself with a soul? Maybe. But given his lifelong struggles, given all his stratagems to conserve

8: DID A HIGHER POWER HELP ERIC CLAPTON AND MARY KARR STOP DRINKING?

Holy Mother,
hear my cry,
I've cursed your
name a thousand
times.

I've felt the
anger running
through my soul;
Holy Mother,
can't keep
control.

International
spy. Drug mule.
Assassin.

—*Mary Karr, in her
memoir Lit*

During Eric Clapton's many suicidal moments, when wealth and fame and his music were no longer enough, he was sustained by one thought: If he killed himself, he would no longer be able to drink. Alcohol was his great enduring love, supplemented by serious affairs with cocaine,

heroin, and just about any kind of drug he could get his hands on. When he first checked himself into the Hazelden clinic in his late thirties, he suffered a seizure during detox because he didn't warn the medical team that he'd been taking Valium—which he'd considered a “lady's drug” so minor it wasn't worth mentioning.

Clapton remained sober for several years after that stint in rehab, but then one summer evening, near his home in England, he drove past a crowded pub and had a thought. “My

selective memory,” as he puts it, “told me that standing at the bar in a pub on a summer’s evening with a long, tall glass of lager and lime was heaven, and I chose not to remember the nights on which I had sat with a bottle of vodka, a gram of coke, and a shotgun, contemplating suicide.”

He ordered the beer, and before long he was back to binges and suicidal feelings. On one particularly low night, he started work on “Holy Mother,” a song pleading for divine help. He hurt his

sinking to his knees and begging for help.

“I had no notion who I thought I was talking to, I just knew that I had come to the end of my tether,” he recalls. “I had nothing left to fight with. Then I remembered what I had heard about surrender, something I thought I could never do, my pride just wouldn’t allow it, but I knew that on my own I wasn’t going to make it, so I asked for help, and, getting down on my knees, I surrendered.” Since that moment, he says, he has never seriously considered

taking another drink, not even on the horrifying day in New York when he had to identify the body of his son, Conor, who had fallen fifty-three stories to his death.

That night at Hazelden, Clapton was suddenly blessed with self-control, but how he got it is more difficult to explain than how he'd lost it. His problems with alcohol could be described in precise physiological terms. Contrary to popular stereotype, alcohol doesn't increase your impulse to do stupid or destructive

things; instead, it simply removes restraints. It lessens self-control in two ways: by lowering blood glucose and by reducing self-awareness. Therefore, it mainly affects behaviors marked by inner conflict, as when part of you wants to do something and part of you does not, like having sex with the wrong person, spending too much money, getting into a fight—or ordering another drink, and then another. This is the sort of inner conflict that cartoonists used to illustrate with the good angel on one shoulder and

drinking, whereupon “all the darkness of doubt vanished away.”

And sometimes it takes a while, as with a supremely cynical agnostic like Mary Karr, the author of *The Liars' Club*, her bestselling memoir of growing up in an oil-refinery town in East Texas. Her mother, who married seven times, was an alcoholic who once set her daughter's toys on fire and tried to stab her to death, according to the memoir. Karr grew up to become a successful poet and to struggle with her own alcoholism. After one

binge that ended with her car spinning out of control across a highway, Karr resolved to remain sober and dutifully followed the Alcoholics Anonymous advice to seek a higher power. She put a cushion on the floor and knelt for the first time in her life to say a prayer—or at least her version of a prayer. The best she could come up with was: *Higher power, where the fuck have you been?* She still didn't believe in any kind of deity, but she did decide to keep offering thanks every evening for remaining

for her: “The primal chattering in my skull has dissipated as if some wizard conjured it away.”

That wizardry can be especially hard to understand for agnostics, a group that includes us. (We’re both lapsed Christians who don’t spend much time on our knees praying to any higher power, either at home or in church.) But after looking at the data, we have no trouble believing there’s some kind of power working at 12-step meetings and religious services. Although many

millions of people like Eric Clapton and Mary Karr without doing something right. Does a belief in a higher power really give you more control over yourself? Or is something else going on—something that even nonbelievers could believe in?

The Mystery of AA

With the exception of organized religion, Alcoholics Anonymous probably represents the largest program ever conducted to improve self-control. It attracts more

predisposed to it—but going to AA is nothing like going to the hospital. Diabetics and hypertensives don't treat their conditions by sitting around offering one another encouragement. As various skeptics have observed, clinicians do not think that depressed people would benefit from spending time attending meetings with other depressed people. The progression of most diseases does not directly depend on people repeatedly taking voluntary self-destructive actions: No

attend infrequently, but the critics wonder about cause and effect. Does frequent attendance make people more likely to abstain, or does abstinence make people more likely to keep attending? Perhaps the ones who fall off the wagon are too ashamed to keep showing up. Or perhaps they simply started off with less motivation and more psychological problems.

Despite these uncertainties, researchers have found some evidence that AA works. When two things go together and researchers want to know

which one causes the other, they sometimes try to track them over time and see which comes first—assuming that causation moves forward across time, so the cause precedes the effect. After tracking more than two thousand men with drinking problems for two years, a team led by John McKellar of Stanford University concluded that attendance at AA meetings led to fewer future problems with drinking (and not the reverse—they found no evidence that the presence or absence of drinking problems affected

attendance at meetings later on). Moreover, the benefits of AA remained even after taking into account the men's initial level of motivation and psychological problems. Other researchers have likewise concluded that AA is at least more effective than nothing. The failure rate among members is high—it's normal for them to relapse periodically—but they usually resume abstinence. In fact, AA seems to be at least as effective as professional treatments for alcoholism.

depends on monitoring, and AA offers help there, too. Members get chips for remaining sober for certain numbers of consecutive days, and when they get up to speak, they often start by saying how many days they have been sober. Members also choose a sponsor, with whom they are supposed to remain in regular, even daily, contact—and that, too, is a powerful boost for monitoring.

There are also a couple of other explanations for the correlation between attending AA meetings and drinking less. The less-

benefit of AA, or even the majority, but it undoubtedly contributes something.

The other, more uplifting, explanation is that the meetings offer social support. Like everyone else, alcoholics and drug addicts are capable of remarkable feats of self-control in order to gain social acceptance. In fact, that desire for peer approval is often what got them in trouble initially. Most people don't enjoy their first taste of alcohol or tobacco. Most people are scared to put unfamiliar

that being drunk made me a member of some strange, mysterious club.”

That’s the negative side of peer pressure. The positive side comes from craving acceptance and support from people with different desires, like the members of the AA groups who helped Clapton and Karr stay sober. The people at those meetings may ultimately matter far more than the twelve steps or the belief in a higher power. They may even *be* the higher power.

Heaven (like Hell) Is Other People

One of the newest and most ambitious alcoholism studies involves a group of men in the Baltimore area who were in therapy for alcohol abuse. Many had been ordered by a court to choose between receiving professional treatment or going to prison, so they were hardly the ideal population of people trying to quit. They may have only been going through the motions as an alternative to prison. The researchers, led by Carlo DiClemente of the University of Maryland,

measured a large assortment of psychological variables and then tracked the men intensively for several months to test a variety of hypotheses, many of which didn't work out. But the researchers did isolate an important external factor that predicted whether the men would remain sober and how serious their lapses would be—whether they'd go on a binge, or stop at a drink or two and then get back on the wagon. The drinkers were asked if they contacted other people for help and

social support for their efforts to avoid drinking. The ones who were better at getting support from other people ended up abstaining more frequently and doing less overall drinking.

Social support is a peculiar force and can operate in two different ways. Plenty of research suggests that being alone in the world is stressful. Loners and lonely people tend to have more of just about every kind of mental and physical illness than people who live in rich social networks. Some of

friends. People struggling with an alcohol or drug problem need social support for *not* drinking, and that's where a group like AA can be vitally helpful. Alcoholics have spent so much of their lives surrounded by drinkers that they can't imagine the benefits of a different kind of peer pressure. It wasn't until Clapton was stuck inside Hazelden that he began looking for help from other people trying to stop drinking. Karr dutifully took herself to some AA meetings at a church during her first

grinding effort that impresses no one outside the church basement I go to a few nights per week.” When the two women met for coffee to celebrate the two months of sobriety, Karr complained about the losers and loons in their AA group and their “spiritual crap.” Then, as Karr recalls, her sponsor suggested another way to think of a higher power, and of the group in the church basement:

“Here, she says, are a bunch of people. They outnumber you, outearn you, outweigh you. They

spouse makes a big difference. Your spouse, after all, is the one who's going to smell your breath.

To quantify the power of peer-group pressure, economists studied a group of Chilean street vendors, seamstresses, and other low-income “microentrepreneurs” who had received loans from a nonprofit group. These people, mostly women, met in groups every week or two to receive training and to monitor the repayment of their loans. The economists Felipe Kast, Stephan Meier, and Dina

to compare themselves with their peers.

Smoking cigarettes has long been regarded as a personal physical compulsion due to overwhelming impulses in the smoker's brain and body. Hence there was considerable surprise in 2008 when the *New England Journal of Medicine* published a study showing that quitting smoking seems to spread through social networks. The researchers, Nicholas Christakis and James Fowler, found that kicking the habit seemed to be

contagious. If a member of a married couple quit smoking, the odds of the other spouse quitting would increase dramatically. The odds also got better if a brother, sister, or friend quit. Even coworkers had a substantial effect, as long as the people worked together in a fairly small firm.

Smoking researchers have been especially intrigued by places where very few people smoke, because the assumption was that these remaining few must be seriously

social support for quitting. Studies of obesity have detected similar patterns of social influence, as we'll discuss later.

Sacred Self-control

If you're in a religious congregation and ask God for longer life, you are likely to get it. It doesn't even seem to matter which god you ask. Any sort of religious activity increases your longevity, according to the psychologist Michael McCullough (who isn't religiously devout himself). He looked at more than

doubt liked to think that God was directly answering their prayers. But divine intervention was not the kind of hypothesis that appealed to social scientists, if only because it was so tough to test in the lab. They have found more earthly causes.

Religious people are less likely than others to develop unhealthy habits, like getting drunk, engaging in risky sex, taking illicit drugs, and smoking cigarettes. They're more likely to wear seat belts, visit a dentist, and take vitamins. They have

better social support, and their faith helps them cope psychologically with misfortunes. And they have better self-control, as McCullough and his colleague at the University of Miami, Brian Willoughby, recently concluded after analyzing hundreds of studies of religion and self-control over eight decades. Their analysis was published in 2009 in the *Psychological Bulletin*, one of the most prestigious and rigorous journals in the field. Some of the effects of religion were unsurprising:

religious practices, but these rituals presumably build willpower in the same way as the other exercises that have been studied, like forcing yourself to sit up straight or speak more precisely.

Religious meditations often involve explicit and effortful regulation of attention. The beginner's exercise in Zen meditation is to count one's breaths up to ten and then do it again, over and over. The mind wanders quite naturally, so bringing it back to focus narrowly on one's breathing builds mental

Some religions, like Islam, require prayers at fixed times every day. Many religions prescribe periods of fasting, like the day of Yom Kippur, the month of Ramadan, and the forty days of Lent. Religions mandate specific patterns of eating, like kosher food or vegetarianism. Some services and meditations require the believer to adopt and hold specific poses (like kneeling, or sitting cross-legged in the lotus position) so long that they become uncomfortable and require

noticed with disapproval. Religions also encourage monitoring through rituals, such as the Catholic sacrament of confession and the Jewish holiday of Yom Kippur, that require people to reflect on their moral failures and other shortcomings.

Of course, it takes some discipline to even start practicing a religion, because you have to attend services, memorize prayers, and follow rules. One reason for the higher levels of self-control found among religious people is that the congregations are

Her path, clearly, is not for everyone. Even if you were willing to adopt Catholicism or another religion just to improve your self-control, you probably couldn't gain most of the benefits without genuine belief. Psychologists have found that people who attend religious services for extrinsic reasons, like wanting to impress others or make social connections, don't have the same high level of self-control as the true believers. McCullough concludes that the believers' self-control

comes not merely from a fear of God's wrath but from the system of values they've absorbed, which gives their personal goals an aura of sacredness.

He advises agnostics to look for their own set of hallowed values. That might be a devout commitment to helping others, the way that Henry Stanley made it his "sacred task" in Africa to end the slave trade. It might be a commitment to improve others' health, or spread humane values, or preserve the environment for future generations. It's probably

no coincidence that environmentalism is especially strong in rich countries where traditional religion has waned. The devotion to God seems to give way to a reverence for nature's beauty and transcendence.

Environmentalists' exhortations to reduce consumption and waste are teaching children some of the same self-control lessons offered in religious sermons and Victorian primers. Secular greens seem to be instinctively replacing one form of self-discipline with another,

and one kind of rules with another: organic instead of kosher, sustainability instead of salvation.

Nor is it just a coincidence that people who have set aside the Bible end up buying so many books with new sets of rules for living. They replace the Ten Commandments with the 12 Steps or the Eightfold Path or the 7 Habits. Even if they don't believe in the God of Moses, they like the idea of codes on sacred tablets. These sorts of rules and dogmas may leave you cold—and make you

nervous—but don't dismiss them all as useless superstition. There's another way to regard these rules, and it comes with enough statistical charts, mathematical game theory, and economic jargon to please the most secular scientists.

Bright Lines

When Eric Clapton relapsed on that summer evening, when he drove by the pub and couldn't resist stopping in for a drink, he was undone by what's called “hyperbolic

discounting.” The most precise way to explain that concept is with graphs and hyperbolas, but we’ll try a visual metaphor (mixed with an old allegory).

Think of Eric Clapton on that Saturday evening as a repentant sinner who is literally on the road to salvation, like the hero of *Pilgrim’s Progress*, the seventeenth-century allegory. Suppose that he, too, is journeying toward a Celestial City. While traveling through the open countryside, he can see the city’s far-off golden spires and keeps heading in their

less important than this one little building. And thus, verily, our pilgrim's progress endeth with him passed out on the pub's floor.

That's the result of hyperbolic discounting: We can ignore temptations when they're not immediately available, but once they're right in front of us we lose perspective and forget our distant goals. George Ainslie, a renowned psychiatrist and behavioral economist with the Department of Veterans Affairs, worked out the mathematics of this

tomorrow, and you're not focused on your vow to go through the rest of your life sober. Those future benefits now seem trivial in relation to the immediate pleasure at the pub. What's the harm in stopping by for one drink?

For many people, of course, there is no harm in stopping for a drink, just as some people (not many) can enjoy one cigarette at a party and not smoke again for months. But if you're someone who can't control your drinking or your smoking, you can't look on that drink or cigarette as an

temptation. Suspecting that his dream of a long sober walk to the Celestial City might be doomed, Eric the Pilgrim starts bargaining with himself: *If I'm going to get drunk anyway tomorrow evening, what difference does it make if I stop for a drink now? Carpe diem! Bottoms up!* For him to resist a drink tonight, he needs to be confident that he won't yield to temptation tomorrow.

He needs the help of "bright lines," a term that Ainslie borrows from lawyers. These are clear,

simple, unambiguous rules. You can't help but notice when you cross a bright line. If you promise yourself to drink or smoke "moderately," that's not a bright line. It's a fuzzy boundary with no obvious point at which you go from moderation to excess. Because the transition is so gradual and your mind is so adept at overlooking your own peccadilloes, you may fail to notice when you've gone too far. So you can't be sure you're always going to follow the rule to drink moderately. In contrast, zero tolerance is a

9: RAISING STRONG CHILDREN: SELF- ESTEEM VERSUS SELF-CONTROL

You're a
superstar no
matter who you
are or where you
come from—and
you were born
that way!

—*Lady Gaga*

Brats are not
born. They're
made.

—*Deborah Carroll, a.k.a.
Nanny Deb*

Thanks to the wonders of reality TV, middle-class parents across the United States have experienced a privilege once limited to the wealthy: outsourcing their jobs to a British nanny. Their stories vary, as you would expect from unhappy families, but the basic narrative arc is the same for each episode of

this genre, whether it's *Nanny 911* or *Supernanny*. It begins in a home with children running wild—crying, screaming, spitting, pulling hair, flinging sippy cups, scrawling crayon graffiti on sheets, smashing toys, punching parents, strangling siblings. They're literally climbing the walls of a ranch house in suburban St. Louis at the start of a classic *Nanny 911* episode titled "The Little House of Horrors." Then, and none too soon, a British nanny arrives at the home dressed in full Victorian regalia—black

attempt to use psychology for the public good, and it did indeed seem promising at first. Baumeister spent much of his early career on the self-esteem bandwagon. He was impressed by research showing that students with high self-esteem had high grades, while students with low-self esteem tended to struggle in school. Other studies revealed that unwed mothers, drug addicts, and criminals had low self-esteem. The correlations weren't large, but they were statistically significant, and the results

All this enthusiasm led to a new approach to child rearing imparted by psychologists, teachers, journalists, and artists like Whitney Houston. She summed up this philosophy in her 1980s hit song “The Greatest Love of All,” which was revealed to be none other than . . . oneself. The key to success was self-esteem. For children to succeed, she explained, they simply need to be shown “all the beauty they possess inside.”

It was a novel but irresistible idea to the

millions who began trying to improve children's academic skills by encouraging them to think, *I'm really good at things.* At home, parents practiced dispensing extra praise. Coaches made sure everyone got a trophy, not just the winners. The Girl Scouts adopted a program called "uniquely ME!" In school, children made collages of their favorite traits and discussed what they liked best about one another. "Mutual admiration society" used to be a disparaging phrase, but today's young adults

society have roots in the low self-esteem of many of the people who make up society.”

He also noted, in a later passage that wasn't nearly as newsworthy, that it was “disappointing” to see the lack of really solid scientific evidence “to date.” But better results were expected once more work was done, and there was plenty of money available for self-esteem research. The studies continued, and eventually another institution commissioned another report. This time it was not a political unit, like

the state of California, but a scientific body, the Association for Psychological Science. The conclusions did not inspire any performances from Whitney Houston or Lady Gaga.

From Self-esteem to Narcissism

The psychologists on the review panel, which included Baumeister, sifted through thousands of studies looking for the ones that met high standards of research quality. The panel found several hundred, like

the one that tracked high school students for several years in order to understand the correlation between self-esteem and good grades. Yes, students with higher self-esteem did have higher grades. But which came first? Did students' self-esteem lead to good grades, or did good grades lead to self-esteem? It turned out that grades in tenth grade predicted self-esteem in twelfth grade, but self-esteem in tenth grade failed to predict grades in twelfth grade. Thus, it seemed, the grades

came first, and the self-esteem came afterward.

In another carefully controlled study, Donald Forsyth tried boosting the self-esteem of some of the students in his psychology class at Virginia Commonwealth University. He randomly assigned some students who got a C grade or worse on the midterm to receive a weekly message boosting their self-esteem, and some students with similar grades to get a neutral weekly message. The weekly pep talks presumably helped the

students feel better about themselves, but it didn't help their grades—quite to the contrary. When they took the final exam, not only did they do worse than the control group but their grades were even lower than what they'd gotten on the midterm. Their average score dropped from 59 to 39—from borderline passing down to hopeless.

Other evidence showed that, across the country, students' self-esteem went up while their performance declined. They just felt better about doing worse. In his own research,

Baumeister puzzled over the observation that some people doing truly awful things—like professional hit men and serial rapists—had remarkably high levels of self-esteem.

After reviewing the scientific literature, the panel of psychologists concluded that there is no modern epidemic of low self-esteem, at least not in the United States, Canada, or western Europe. (There's not much known about trends of how people regard themselves in, say, Myanmar.) Most people already feel pretty good

about themselves. Children in particular tend to start off with very positive views of themselves. The consensus of the scientific literature happens to jibe with anecdotal evidence from the Baumeister household, where there have been conversations like this:

Daughter (4 years old): I know everything.

Mother: No, honey, you don't know everything.

Daughter: Yes, I do. I know everything.

Mother: You don't know the square root of thirty-six.

Daughter (without batting an eye): I'm keeping all the really big numbers a secret.

Mother: It's not a really big number. It's only six.

Daughter: I knew that.

And this was a child whose parents had *not* attempted to boost her self-esteem.

The review panel also concluded that high self-esteem generally does not make people more effective or easier to get along with. People with high self-esteem think they're more popular, charming, and socially skilled than other

people, but objective studies find no difference. Their self-esteem generally does not lead to better performance at school or at work, and it does not help prevent cigarette smoking, alcohol and drug use, or early sexual behavior. While there may be a correlation between low self-esteem and problems like drug addiction and teenage pregnancy, that doesn't mean that low self-esteem causes these problems. It works the other way: Being a sixteen-year-old pregnant heroin addict can make you feel

less than wonderful about yourself.

There seem to be only two clearly demonstrated benefits of high self-esteem, according to the review panel. First, it increases initiative, probably because it lends confidence. People with high self-esteem are more willing to act on their beliefs, to stand up for what they believe in, to approach others, to risk new undertakings. (This unfortunately includes being extra willing to do stupid or destructive things, even when everyone

it's adulation they require). They expect to be treated as special beings and will turn nasty when criticized. They tend to make very good first impressions but don't wear well. When the psychologist Delroy Paulhus asked people in groups to rate one another, the narcissists seemed to be everyone's favorite person, but only during the first few meetings. After a few months, they usually slipped to the bottom of the rankings. God's gift to the world can be hard to live with.

By most measures in psychological studies, narcissism has increased sharply in recent decades, especially among young Americans. College professors often complain that students now feel entitled to high grades without having to study; employers report problems with young workers who expect a quick rise to the top without paying their dues. This trend toward narcissism is even apparent in song lyrics over the past three decades, as a team of researchers led by Nathan DeWall demonstrated in a

clever study showing that words like “I” and “me” have become increasingly common in hit songs. Whitney Houston’s “Greatest Love of All” has been taken to another level by musicians like Rivers Cuomo, the lead singer of Weezer, who wrote and performed a popular song in 2008 titled “The Greatest Man That Ever Lived.” It was autobiographical.

This broad rise in narcissism is the problem child of the self-esteem movement, and it is not likely to change anytime

Exceptional Asians

There's one notable exception to the trend toward narcissism observed in psychological studies of young Americans. It doesn't appear among young Asian-Americans, probably because their parents have been influenced less by the self-esteem movement than by a cultural tradition of instilling discipline. Some Asian cultures put considerably more emphasis on promoting self-control, and from

override their natural impulses. In one test, for instance, the toddlers are shown a series of pictures and instructed to say “day” whenever they see the moon, and “night” whenever they see the sun. In other tests, the toddlers try to restrain themselves to a whisper when they’re excited, and play a version of Simon Says in which they’re supposed to obey one kind of command but ignore another kind. The Chinese four-year-olds generally perform better on these tests than Americans of the same age. The

Chinese toddlers' superior self-control might be due in part to genes: There's evidence that the genetic factors associated with ADHD (attention deficit hyperactivity disorder) are much rarer in Chinese children than in American children. But the cultural traditions in China and other Asian countries undoubtedly play an important role in instilling self-discipline, and those traditions in Asian-American homes have contributed to the children's low levels of narcissism as well as their

later successes. Asian-Americans make up only 4 percent of the U.S. population but account for a quarter of the student body at elite universities like Stanford, Columbia, and Cornell. They're more likely to get a college degree than any other ethnic group, and they go on to earn salaries that are 25 percent above the American norm.

Their success has led to the popular notion that Asians are more intelligent than Americans and Europeans, but that's not how James Flynn explains

Japanese-Americans. By virtue of self-control—hard work, diligence, steadiness, reliability—the children of immigrants from East Asia can do as well as Americans with higher IQs.

Delayed gratification has been a familiar theme in the homes of immigrants like Jae and Dae Kim, who were born in South Korea and raised two daughters in North Carolina. The sisters, Soo and Jane, became a surgeon and a lawyer, respectively, as well as the coauthors of *Top of the Class*, a book about Asian parents' techniques

parents for a cheap used car to get around, they refused but offered to buy her a brand-new car if she was admitted to medical school. Thus, these parents did provide good things for their daughters—but each treat was meted out as a reward for some valued achievement.

The many Asian-American success stories have forced developmental psychologists to revise their theories about proper parenting. They used to warn against the “authoritarian” style, in which parents set rigid

children were flourishing both in and out of school.

The contrast with American notions showed up in a study of women in the Los Angeles area who were the mothers of toddlers. When asked how parents could contribute to children's academic success, the mothers who had emigrated from China most frequently mentioned setting high goals, enforcing tough standards, and requiring children to do extra homework. Meanwhile, the native-born mothers of European ancestry were determined

Western counterparts: (1) higher dreams for their children, and (2) higher regard for their children in the sense of knowing how much they can take.” Chua’s basic strategies—set clear goals, enforce rules, punish failure, reward excellence—aren’t all that different from the ones being imparted to American homes on *Nanny 911* by Deborah Carroll, the member of the “team of world-class nannies” who gets assigned to the truly hard cases, like the Paul family portrayed in that “Little House of Horrors”

episode. In her dealings with American children, Carroll says, she's simply applying the lessons of her own youth in Wales.

“When I was in school,” Carroll recalls, “it was such a big thing to get a gold or silver star. It was so important to have a sense that I worked really hard to achieve something. When I ironed my grandfather's shirts, he insisted on paying me because I did it so well—he told me I did it better than my grandmother, and I loved that feeling of accomplishment. That's

Nanny Deb and the Triplets

When Carroll arrived at the Pauls' home near St. Louis, she wasn't particularly worried about the hellions she'd seen on video climbing the walls, spitting on the floor, and swinging from light fixtures. She knew that four-year-olds could be a handful, especially when there were three of them running wild. But she had had enough experience with other American houses of horrors to realize that there were bigger problems to deal with.

“In homes like this, the children are very, very easy,” Carroll says. “They’re looking for structure. They’re looking to feel safe, for someone who can tell them: ‘I’m in charge. Things are going to be fine.’ It’s much harder to get the parents to stay on track. They have to learn how to get control of themselves to control the children.”

Carroll had been dealing with parents like this since becoming a full-time nanny at the age of eighteen. One of her first jobs in London was with an American

mother, married to a Briton, who would watch helplessly as her child went berserk. “The toddler would be literally spinning on the coffee table in a tantrum,” Carroll recalls, “and the mother would just say to her, ‘You’re in a really bad space, honey.’ There’s nothing wrong with a toddler having a tantrum. It’s natural. It’s our job to teach them other ways to deal with it.”

The Pauls weren’t as mellow as that mother, but they seemed just as helpless when it came to discipline. When the

father, Tim, came home from the office to find the living room covered in toys, he'd take a hockey stick and sweep them all into the closet. The mother, Cyndi, a former flight attendant accustomed to badly behaved adults, was overwhelmed by the triplets and had given up trying to get them to clean up their toys or get dressed. When Nanny Deb told them to put on their own socks—hardly an impossible feat for toddlers approaching kindergarten—one of them, Lauren, refused and ran

and spoiling the child was considered to be the essence of failed parenting. The Puritan Cotton Mather put it even more starkly: “Better whipt, than damned.” We’re not advocating a return to spanking, much less whipping, but we do think parents need to rediscover their roles as disciplinarians. That doesn’t mean being abusive or getting angry or imposing Draconian penalties. But it does mean taking the time to watch your child’s behavior and

impose appropriate rewards or punishments.

Whether you're giving a time-out to a toddler or revoking a teenager's driving privileges, there are three basic facets of punishment: severity, speed, and consistency. Many people associate strict discipline with severe penalties, but that's actually the least important facet. Researchers have found that severity seems to matter remarkably little and can even be counterproductive: Instead of encouraging virtue, harsh punishments teach

the child that life is cruel and that aggression is appropriate. The speed of the punishment is much more important, as researchers have found in working with children as well as with animals. For lab rats to learn from their mistakes, the punishment generally has to occur almost immediately, preferably within a second of the misbehavior. Punishment doesn't have to be that quick with children, but the longer the delay, the more chance that they'll have forgotten the

infraction and the mental processes that led to it.

By far the most important facet of punishment—and the most difficult one for parents—is consistency. Ideally, a parent should quickly discipline the child every single time he or she misbehaves, but in a restrained, even mild manner. A stern word or two is often enough as long as it's done carefully and regularly. This approach can initially be more of a strain on the parents than on the child. They're tempted to overlook or

delivered briefly, calmly, and consistently, according to Susan O'Leary, a psychologist who has spent long hours observing toddlers and parents. When parents are inconsistent, when they let an infraction slide, they sometimes try to compensate with an extra-strict punishment for the next one. This requires less self-control on the parents' part: They can be nice when they feel like it, and then punish severely if they're feeling angry or the misbehavior is egregious. But imagine how this looks

from the child's point of view. Some days you make a smart remark and the grown-ups all laugh. Other days a similar remark brings a smack or the loss of treasured privileges. Seemingly tiny or even random differences in your own behavior or in the situation seem to spell the difference between no punishment at all and a highly upsetting one. Besides resenting the unfairness, you learn that the most important thing is not how you behave but whether or not you get caught, and whether your

answer, as ever, starts with setting goals and standards.

Rules for Babies and Vampires

Long before children can read rules or do chores, they can start learning self-control. Ask any parent who has survived the ordeal of Ferberization, which is based on a technique found in a Victorian child-rearing manual. It requires the parents, against all instinct, to ignore their infants' cries when they're left alone at

bedtime. Instead of rushing to the infant's side, the parents let the infant cry for a fixed interval of time, then go offer some comfort, then withdraw for another fixed interval. The process is repeated until the child learns to control the crying and go to sleep without any help from the parents. It requires great self-control by the parents to ignore the heart-rending screams, but the infants usually learn quickly to put themselves to sleep without any crying. Once an infant acquires this self-control, everyone wins: The infant is no

watching television or playing a video game, up to a total of an hour per day. If they misbehave, they first get a warning, and if they persist, the parent removes one of the rings.

To keep the rules consistent, parents need to coordinate with each other and with caretakers so that everyone knows what's expected. When your children are still toddlers, establish a system of rewards and punishments in advance, and when you're giving either one to a child, explain exactly why. As they get older, it

children open savings accounts, keep track of the bank statements, and set goals and rewards. Research has shown that children who open bank accounts are more likely than others to grow up to be savers. So are children who grow up discussing money with their parents.

Some parents like to offer cash for good grades; others balk at paying for what children are supposed to be doing anyway. The most compelling argument against these payments is based on what psychologists call the

overjustification effect:
Rewards turn play into
work. More precisely,
studies have shown that
when people are paid to do
things that they like to do,
they start to regard the task
as paid drudgery. By that
logic, wouldn't paying for
grades undermine
children's intrinsic love of
learning?

We're not convinced by
that argument. In the first
place, grades are already
extrinsic rewards, so
inserting money into the
arrangement does not
change any relevance of the
overjustification effect to

children the high value that society, and the family, places on school, particularly if the money is reserved for outstanding achievement.

We'll grant that paying children just for routinely attending school might well reduce their desire to go to school without pay (as if that were a concern). But if you're paying them for working extra hard and excelling, what's the problem? The results from randomized experiments in paying for grades have been mixed: In some places they haven't done much to

improve students' performance, but in other places the payments seem to be remarkably effective. We don't see the downside in trying this experiment at home—although of course you can always stick with noncash rewards if you prefer. Just remember that if you want to instill self-control, you need to be consistent in whatever rewards you give. Don't haphazardly give the child something from your wallet for a good report card. Instead, set the goals in advance: how much money for each A, how much for

each B, which subjects count most, etc. For a young child, you may have to set the payment schedule, but older children can start negotiating bonuses and penalties, and perhaps even drawing up formal contracts for both sides to sign. The rules and the rewards will change as the child gets older, but it's important to keep a disciplined system in place, no matter how difficult that seems when the dreaded teenage years arrive.

The problem with adolescents—from the

her life, if they consummate their love.

Thus they struggle:

Edward: Try to sleep, Bella.

Bella: No, I want you to kiss me again.

Edward: You're overestimating my self-control.

Bella: Which is tempting you more, my blood or my body?

Edward: It's a tie.

Their struggle is the same blockbuster ingredient that sold nineteenth-century romantic novels with titles like *Self-Control* and

teenagers can help draw up the rules, they begin to see these as personal commitments instead of parental whims. If they negotiate a curfew, they're more likely to respect it, or at least to accept the consequences for breaking it. And the more involved they get in setting goals, the more likely they are to proceed to the next step of self-control: monitoring themselves.

Wandering Eyes

Before his famous marshmallow experiments

with children near Stanford University, Walter Mischel made another discovery about self-control while working in Trinidad. He went there with the intention of studying ethnic stereotypes. The two main ethnic groups in rural Trinidad were of different descent, one African, the other Indian, and they held negative but different stereotypes of each other. The Indians regarded the Africans as lacking in future orientation and inclined to indulge rather than save, whereas the Africans regarded the

Indians as joyless savers who lacked a zest for life. Mischel decided to test these stereotypes by asking children from each group to choose between two candy bars. One candy bar was bigger and cost ten times as much as the other, but a child who chose it would have to wait a week to get it. The smaller, cheaper one was available right away.

Mischel found some support for the ethnic stereotypes, but in the process he stumbled on a much bigger and more meaningful effect. Children

who had a father in the home were far more willing than others to choose the delayed reward. Most of the racial and ethnic variation could be explained by this difference, because the Indian children generally lived with both parents, whereas a fair number of the African children lived with a single mother. The value of fatherhood was also evident when Mischel analyzed just the African homes: About half of the children living with fathers chose the delayed reward, but none of the children in

fatherless homes were willing to wait. Similarly, none of the Indian children living without a father were willing to wait.

These findings, which were published in 1958, didn't attract much attention at the time or in the ensuing decades, when it was dangerous to one's career to suggest that there might be drawbacks to single-parent homes. (Daniel Patrick Moynihan was excoriated for making that suggestion.) Starting in the 1960s, changes in federal policies, social norms, and divorce rates

led to a great expansion in the number of children raised by only one parent, usually the mother. No one wanted to sound critical of those mothers—and we certainly don't want to denigrate their hard work and dedication. But eventually there were so many results like Mischel's that the data could no longer be ignored. As a general rule—with lots and lots of exceptions, including Bill Clinton and Barack Obama—children raised by single parents tend not to do as well in life as children who grow up

with two parents. Even after researchers control for socioeconomic factors and other variables, it turns out that children from two-parent homes get better grades in school. They're healthier and better-adjusted emotionally. They have more satisfying social lives and engage in less antisocial behavior. They're more likely to attend an elite university and less likely to go to prison.

One possible explanation is that children in one-parent homes start off with a genetic disadvantage in

control, and two parents can generally do a better job of monitoring. Single parents are so busy with essential tasks—putting food on the table, keeping the child healthy, paying bills—that they have to put a lower priority on making and enforcing rules. Two parents can divide the work, leaving them both with more time and energy to spend building the child's character. More adult eyes make a difference—and quite a lasting difference, to judge from the results of a study

McCord, who compared the teenage experiences with subsequent adult behavior—in particular, criminal behavior. A lack of adult supervision during the teenage years turned out to be one of the strongest predictors of criminal behavior. The counselors had recorded whether the boys' activities outside of school were usually, sometimes, or rarely regulated by an adult. The more time the teenagers spent under adult supervision, the less likely they were to be later convicted of either

personal or property crimes.

The passage of decades has not erased the value of parental monitoring. A recent compilation of studies on marijuana use, totaling more than thirty-five thousand participants, showed a robust link to parental supervision. When parents keep tabs on where their children are, what they do, and whom they associate with, the children are much less likely to use illegal drugs than when parents keep fewer close tabs. Similarly, recent studies of diabetic children

have found multiple benefits of parental supervision. Adolescents have higher self-control to the extent that their parents generally know where their offspring are after school and at night, what they do with their free time, who their friends are, and how they spend money. Although type I diabetes comes on early in life and may be mainly a result of genes, the adolescents with high trait self-control and high parental supervision have lower blood sugar levels (thus, less severe diabetic

problems) than others. In fact, having a mother or father who keeps track of the child's activities, friends, and spending habits can even compensate to some degree for lower levels of self-control, in terms of reducing the severity of diabetes.

The more that children are being monitored, the more opportunities they have to build their self-control. Parents can guide them through the kind of willpower-strengthening exercises we've discussed earlier, like taking care to

with their shoelaces. That marshmallow experiment caused some researchers to conclude that controlling attention is what matters, not building willpower, but we disagree. Yes, controlling attention is important. But you need willpower to control attention.

Playing to Win

For more than half a century, television has distracted children from other pursuits, and for more than half a century it's been blamed for just

thinking longer-range. Prolonged dramatic play with other children also requires them to exert control over attention and sustain make-believe roles. Even simple pretend games like playing house or soldiers obligate toddlers to stay in character and to follow the game's rules when interacting with other children. Independent research has shown that children who participated in Tools of the Mind ended up with significantly better self-control, by standard laboratory tests, when

acquire skills, they fail over and over. The typical teenager must have endured thousands of digital deaths and virtual fiascos, yet somehow he retains enough self-esteem to keep trying. While parents and educators have been promoting the everybody-gets-a-trophy philosophy, children have been seeking games with more demanding standards. Players need concentration to fight off Ork after Ork; they need patience to mine for virtual gold; they need thriftiness

10: THE PERFECT STORM OF DIETING

It is a hard matter, my fellow citizens, to argue with the belly, since it has no ears.

—Plutarch

How did I let this happen again?

—Oprah Winfrey

There is nothing so universally desired in rich countries as flat abs. The more money we make, and the more of it we give to the diet industry, the more impossible that ideal seems. Losing weight is the most popular New Year's resolution year after year, diet after forsaken diet. In the long run, the vast majority of dieters fail. Therefore, we are not going to guarantee you an eternally svelte body. But we can tell you which techniques are more likely to help you lose weight,

illustrate some problem of self-control, they tend to pick dieting more often than any other sort of example.

Recently, though, researchers have found that the relationship between self-control and weight loss is much less direct than everyone thought.

They've discovered something we'll call the Oprah Paradox, in honor of the world's most famous dieter. Early in her career, when she was working as a newscaster, Oprah Winfrey's weight rose from 125 to 140

Award, she prayed for her rival talk-show host Phil Donahue to win. That way, as she later recalled, “I wouldn’t have to embarrass myself by rolling my fat butt out of my seat and walking down the aisle to the stage.” She had just about lost hope when she met Bob Greene, a personal trainer, whereupon the two of them transformed each other’s lives.

He became a bestselling author of training regimens and recipes he used with Winfrey, and began selling his own line of Best Life food. Guided by Greene

her the relationship between weight and love.

The result was displayed on the cover of Winfrey's magazine in 2005: a radiant, sleek woman weighing 160 pounds. (Note, though, that this triumph still put her 20 pounds above what she weighed at the *start* of her first diet.) Winfrey's success story was an inspiration both to her fans and to an anthropologist at Emory University, George Armelagos. He used it to illustrate a historic shift that he dubbed the King Henry VIII and Oprah

Winfrey Effect. In Tudor England, it wasn't easy keeping anyone as fat as Henry VIII. His diet required resources and labor from hundreds of farmers, gardeners, fishermen, hunters, butchers, cooks, and other servants. But today even commoners can get as fat as King Henry VIII—in fact, poor people tend to be fatter than the ruling classes. Thinness has become a status symbol because it's so difficult for ordinary people to achieve unless they're genetically lucky. To remain thin, it

willpower, access to the world's finest professional advice, a cadre of dedicated monitors, plus the external pressure of having to appear every day in front of millions of people watching for any sign of weight gain. Yet despite all her strength and motivation and resources, she couldn't keep the pounds off.

That's what we call the Oprah Paradox: Even people with excellent self-control can have a hard time consistently controlling their weight. They can use their willpower to thrive in many

ways—at school and work, in personal relationships, in their inner emotional lives—but they're not that much more successful than other people at staying slim. When Baumeister and his colleagues in the Netherlands analyzed dozens of studies of people with high self-control, they found that these self-disciplined people did slightly better than average at controlling their weight, but the difference wasn't as marked as in other areas of their lives. This pattern showed up clearly among the overweight college

restrict eating and increase exercising. But while their self-discipline helped them control their weight, it didn't seem to make a huge difference either before or during the study. High self-control was better than low self-control, but not by much.

And if the researchers had tracked the students after the weight-loss program ended, no doubt many of them would have put the pounds right back on, just as Oprah Winfrey and so many other dieters have done. Their self-control would have been

useful in helping them keep up the exercise routine, but exercising isn't enough to guarantee weight loss. Even though it seems logical that burning more calories would get rid of pounds, researchers have found that the body responds by craving more food, so increased exercise doesn't necessarily lead to long-term weight loss. (But it's still worthwhile for lots of other reasons.) Whether or not you have good self-control, whether or not you exercise, if you go on a diet, the odds are that you won't permanently lose weight.

along with a diet once or twice—but then it starts fighting back. When fat lab rats are put on a controlled diet for the first time, they'll lose weight. But if they're then allowed to eat freely again, they'll gradually fatten up, and if they're put on another diet it will take them longer to lose the weight this time. Then, when they once again go off the diet, they'll regain the weight more quickly than the last time. By the third or fourth time they go through this boom-and-bust cycle, the dieting ceases to work; the extra

ordinary challenge. It's more like the perfect storm.

The first step in self-control is to establish realistic goals. To lose weight, you could look in the mirror, weigh yourself, and then draw up a sensible plan to end up with a trimmer body. You could do that, but few do. People's goals are so unrealistic that an English bookmaker, the William Hill agency, has a standing offer to bet against anyone who makes a plan to lose weight. The bookmaker, which offers odds of up to

considering the unrealistic goals set by so many women. They look in the mirror and dream the impossible dream: a “curvaceously thin” body, as it’s known to researchers who puzzle over these aspirations. The supposed ideal of a 36-24-36 figure translates to someone with size 4 hips, a size 2 waist, and a size 10 bust—someone, that is, with ample breasts but little body fat, who must be either a genetic anomaly or the product of plastic surgery.

The What-the-Hell Effect

The people arrived at the lab in what researchers call a “food-deprived state,” which is more commonly known as “hungry.” They hadn’t eaten for several hours. Some were given a small milkshake to take the edge off; others drank two giant milkshakes with enough calories to leave a normal person feeling stuffed. Then both groups, along with other subjects who hadn’t been given any kind of milkshake, were asked to serve as food tasters.

all, they could always tell themselves they were just trying to do a good, thorough job of rating the crackers and cookies. They didn't realize that the ratings didn't matter, and that the researchers were just interested in how many cookies and crackers they ate, how the milkshakes affected them, and how the dieters in the group compared with the people who weren't on a diet.

The nondieters reacted predictably enough. Those who had just drunk the two giant milkshakes nibbled at

the crackers and quickly filled out their ratings. Those who had drunk the one modest milkshake ate more crackers. And those who were still hungry after not eating for hours went on to chomp through the better part of the cookies and crackers. All perfectly understandable.

But the dieters reacted in the opposite pattern. The ones who had downed the giant milkshakes actually ate *more* cookies and crackers than the ones who'd had nothing to eat for hours. The results stunned the researchers,

who were led by Peter Herman. Incredulous, they conducted further experiments, with similar results, until they finally began to see why self-control in eating can fail even among people who are carefully regulating themselves.

The researchers gave it a formal scientific term, *counterregulatory eating*, but in their lab and among colleagues it was known simply as the what-the-hell effect. Dieters have a fixed target in mind for their maximum daily calories, and when they exceed it for

some unexpected reason, such as being given a pair of large milkshakes in an experiment, they regard their diet as blown for the day. That day is therefore mentally classified as a failure, regardless of what else happens. Virtue cannot resume until tomorrow. So they think, *What the hell, I might as well enjoy myself today*—and the resulting binge often puts on far more weight than the original lapse. It's not rational, but dieters don't even seem to be aware of how much damage these binges do, as demonstrated

The Dieter's Catch-22

Humans are born with an innate gift for eating just the right amount. When an infant's body needs food, it sends a signal through hunger pangs. When the body has had enough food, the infant doesn't want to eat any more. Unfortunately, children start to lose this ability by the time they enter school, and it continues to decline later in life for some people—often the ones who need it the most. Why this occurs has been puzzling scientists for decades, starting with some research

typically lose touch with the stop-eating signal, too, particularly if the diet tells you exactly how much to eat. You eat by the rules, which works fine as long as you stick to them. But once you deviate from the rules, as just about everyone does, you have nothing left to guide you. That's why, even after downing a couple of big milkshakes, dieters and obese people not only continue but increase their eating. The milkshakes filled them up, but they still don't feel full. They have only the one bright line, and once they

binge as long as they had the willpower to observe the rules.

All of which makes a certain sense, but only until you actually begin testing those dieters' willpower with movies, ice cream, and M&M's, as Kathleen Vohs and Todd Heatherton did in a series of experiments. The psychologists recruited young women, all chronic dieters, and showed them a classic tearjerker, the scene in *Terms of Endearment* in which the young mother, who is dying of cancer, says good-bye to her two little

sons, her husband, and her mother. Half the dieters were instructed to try to suppress their emotional responses, both internally and externally. The other half were told to let their feelings and tears flow naturally. Afterward, all the dieters filled out questionnaires about their mood, and each was taken individually to a different room for what was ostensibly an unrelated task: rating various kinds of ice cream. The ice cream was presented to each dieter in several large and only partly full tubs, which

created the impression that the experimenters would not know how much was in there and how much each woman ate.

But, of course, the tubs had been carefully weighed beforehand, and they were weighed again afterward. The researchers found that there was no connection between the women's moods and their eating: The ones who were sadder after the movie didn't eat extra ice cream to drown their sorrows. What mattered was not their mood but rather their will. The dieters who had

drains your willpower, rendering you more likely to overeat later on in a separate, ostensibly unrelated context.

In another test of the wills of young female dieters, each one was tempted by a bowl brimming with M&M's that was placed in the screening room with her as she watched a nature documentary (a nontearjerker about bighorn sheep). For some of the women, the bowl was placed nearby, within easy reach, so they had to continually resist the

temptation. For other women, the candy bowl was placed on the other side of the room and hence was easier to resist. Later, in a separate room with no food in sight, the women were given impossible puzzles to solve, that standard lab test of self-control. The dieters who had sat within arm's reach of the M&M's gave up sooner on the puzzles, demonstrating that their willpower had been depleted by the effort of resisting temptation. Clearly, if you're a dieter who doesn't want to lose

self-control, you shouldn't spend a lot of time sitting right next to a bowl of M&M's. Even if you resist those obvious temptations, you'll deplete your willpower and be prone to overeating other foods later.

But there's also another way to avoid this problem, as illustrated in a third experiment involving young women and food. This time Vohs and Heatherton tested nondieters in addition to dieters, and a clear distinction emerged. It turned out that the

nondieters could sit next to an array of snacks—Doritos, Skittles, M&M's, salted peanuts—without using up willpower. Some ate the snacks and some didn't, but either way, they weren't struggling to restrain themselves, so they remained relatively fresh for other tasks. The dieters, meanwhile, gradually depleted their willpower as they fought the urge to break their diet. They went through the same struggle that you see played out at social events when dieters are confronted with fattening

food. The dieters can resist for a while, but each act of resistance further lowers their willpower.

Then, as they're weakening, they face yet another of the peculiarly maddening challenges of controlling eating. To continue resisting temptation, they need to replenish the willpower they've lost. But to resupply that energy, they need to give the body glucose. They're trapped in a nutritional catch-22:

1. In order not to eat, a dieter needs willpower.

because, as we've already seen, self-control depletes the glucose in the bloodstream. If you've ever been on a diet and found yourself unable to shake those intrusive cravings for chocolate or ice cream, this is more than a matter of repressed desires coming back to haunt you. There is a sound physiological basis. The body "knows" that it has depleted the glucose in its bloodstream by exerting self-control, and it also seems to know that sweet-tasting foods are typically the fastest way to get an infusion of energy-rich

have a small sweet dessert later if you still want it. (We'll discuss this ploy later, too.) Meanwhile, eat something else. Remember, your body is craving energy because it has used up some of its supply with self-control. The body feels a desire for sweet foods, but that is only because that is a familiar and effective way to restore energy. Healthy foods will also provide the energy it needs. It's not what's on your mind, but it should do the trick.

Remember, too, that the depleted state makes you

feel everything more intensely than usual. Desires and cravings are exceptionally intense to the depleted person. Dieting is a frequent drain on your willpower, and so the dieter will frequently be in a depleted state. That will, in effect, turn up the volume on many good and bad things that happen throughout the day. It will also make longings—yes, unfortunately, even the longings for food, which are already there—seem especially intense. This may help explain why, eventually, many dieters

seem to cultivate a numbness to their body's wants and feelings about food.

There is no magical solution to the dieter's catch-22. No matter how much willpower you start off with, if you're a dieter and spend enough time sitting near the dessert buffet telling yourself *no*, eventually *no* will probably change to *yes*. You need to avoid the dessert cart—or, better yet, avoid going on a diet in the first place. Instead of squandering your willpower on a strict diet, eat enough glucose to

conserve willpower, and use your self-control for more promising long-term strategies.

Planning for Battle

When you're not starving, when you have glucose, you can prepare for the battle of the bulge with some of the classic self-control strategies, starting with precommitment. The ultimate surefire form of precommitment—the true equivalent of Odysseus tying himself to the mast—would be gastric bypass surgery, which would

physically prevent you from eating, but there are lots of more modest forms. You can begin by simply keeping fattening food out of reach and out of sight. You'll conserve willpower (as the women in the experiment did when the M&M's were moved out of reach) at the same time that you're avoiding calories. In one experiment, office workers ate a third less candy when it was kept inside a drawer rather than on top of their desks. A simple commitment strategy for avoiding late-night

You can consider more elaborate commitment devices, like placing a bet with a bookmaker, or by locking in a weight-loss agreement at Web sites like fatbet.net or stickK.com, which allow you to name your own goals along with penalties. A tough penalty, like committing yourself to donate hundreds or thousands of dollars to a cause you detest, can make a difference, but don't expect money to work miracles when you set an impossible goal. Losing 5 or 10 percent of your weight is a realistic goal,

but beyond that it becomes difficult to overcome the body's natural propensities. The typical bettor at the William Hill agency sets a goal of losing nearly three pounds per week for a total of almost eighty pounds—no wonder so many of them fail. The people putting up their money at stickK.com have a much better track record thanks to the Web site's policy of forbidding anyone from setting a goal of losing more than two pounds per week, or 18.5 percent of their body weight. It's possible to lose

effortless, you can pass up the chips and still have enough willpower to deal with the next temptation at the party.

For a more radical form of precommitment, you could skip the party altogether and seek out gatherings with lower-calorie offerings—and thinner people. We're not suggesting you dump your chubby friends, but there does seem to be a connection between what you weigh and whom you socialize with. Researchers who have analyzed social networks find that obese

people tend to cluster together, as do thin people. Social distance seems to matter more than physical distance: Your chances of being obese increase more because your best friend gains weight than because your next-door neighbor gains weight. It's difficult to disentangle cause and effect—no doubt people are seeking out others who share their habits and tastes. But it's also true that people reinforce one another's behavior and standards. One reason why members of Weight Watchers shed pounds (at

least for a while) is that they're spending more time with other people who care about losing weight. It's the same phenomenon we noted earlier with smokers, who are more likely to quit if their friends and relatives also quit.

Peer pressure helps explain why people in Europe weigh less than Americans: They follow different social norms, like eating only at mealtimes instead of snacking throughout the day. When European social scientists come to the United States to study eating habits in

on the equivalent of an implementation plan: *If it's four P.M., then I won't eat anything.*

Let Me Count the Weighs (and the Calories)

If you're trying to lose weight, how often should you weigh yourself? The standard advice used to be to not get on the scale every day, because your weight naturally fluctuates and you'll get discouraged on days it goes up for no apparent reason. If you want to keep up your

motivation, the weight-loss experts said, you should weigh yourself just once a week. That advice seemed odd to Baumeister and other self-control researchers, because their work on other problems consistently showed that frequent monitoring improved self-control. Eventually, a careful long-term study tracked people who'd lost weight and were trying not to regain it. Some of these people weighed themselves daily; others didn't. It turned out that the conventional wisdom was wrong.

The people who weighed themselves every day were much more successful at keeping their weight from creeping back up. They were less likely to go on eating binges, and they didn't show any signs of disillusion or other distress from their daily confrontation with the scale. For all the peculiar challenges to losing weight, one of the usual strategies is still effective: The more carefully and frequently you monitor yourself, the better you'll control yourself. If it seems like too much of a chore to write

with large portions. We've been further confused by the warnings of nutritionists and the tricks of food companies, who will use a label like "low-fat" or "organic" to create what researchers call a "health halo." Tierney investigated this phenomenon in the nutritionally correct neighborhood of Park Slope, Brooklyn, with an experiment designed by two researchers, Pierre Chandon and Alexander Chernev. Some of the Park Slopers were shown pictures of an Applebee's

meal consisting of chicken salad and a Pepsi; others were shown the identical meal plus some crackers prominently labeled “Trans Fat Free.” The people were so entranced by the crackers’ virtuous label that their estimate for the meal with crackers was *lower* than for the same meal without crackers. The label magically translated into “negative calories,” both in the informal experiment in Park Slope and in a formal peer-reviewed study published later by Chernev. Other studies have shown that both laypeople and

The bones did the monitoring for them.

Never Say Never

The results of dieting research tend to be depressing, but every now and then there's an exception, and we've saved our favorite cheery finding for last. It's from a dessert-cart experiment conducted by marketing researchers trying to figure out the central problem of self-control: Why is self-denial so difficult? As Mark Twain put it in *The Adventures of Tom Sawyer*: "To promise

not to do a thing is the surest way in the world to make a body want to go and do that very thing.” That’s one of the more frustrating aspects of the human psyche, but the researchers, Nicole Mead and Vanessa Patrick, looked for relief by considering different kinds of self-denial.

They started with some mental experiments using pictures of tasty, appealing foods. The experimental subjects were told to imagine these delicacies being offered on a dessert cart in a restaurant. Some

short film while sitting next to a bowl of M&M's (a perpetual favorite in laboratories because they're so easy to work with—no muss, no fuss). Some people were told to imagine they had decided to eat as much as they wanted while watching the movie. Others were told to imagine they had decided not to eat any of the candy. A third group was told to imagine they had decided not to eat the M&M's now but would have them later on. In general, the instructions were effective: The ones told to assume

they had decided to eat actually did eat considerably more than the ones told to deny or postpone the pleasure. The study proceeded through some questionnaires, after which the experimenter (falsely) said the experiment was now over. Each person was asked to remain and fill out one more questionnaire, which was ostensibly concerned with the quality of the laboratory setting.

Then, seemingly as an afterthought, the experimenter gave the bowl of M&M's back to the

postpone pleasure had a golden opportunity to indulge themselves. You'd expect them to scarf the M&M's, while the people who'd sworn off the candy would either remain strong or perhaps just nibble. But exactly the opposite occurred. Those in the postponement condition actually ate significantly less than those in the self-denial condition. The findings would have been impressive if people had merely eaten equal amounts in the postponement condition and the refusal condition.

After all, the ones in the postponement condition were fully expecting to enjoy the treats later.

The fact that they ate less than the others is remarkable. The result suggests that telling yourself *I can have this later* operates in the mind a bit like having it now. It satisfies the craving to some degree—and can be even more effective at suppressing the appetite than actually eating the treat. During that final part of the experiment, when all the people were left alone with a bowl of M&M's, the

ones who'd postponed pleasure ate even less than the people who had earlier allowed themselves to eat the candy at will. Moreover, the suppression effect seemed to last outside the laboratory. The day after the experiment, all the people were sent an e-mail with a question: "How much do you desire M&M candies at this very moment, if someone offered them to you?" Those who had postponed gratification reported less desire to eat the candy than either the people who had refused the pleasure

**CONCLUSION: THE
FUTURE OF
WILLPOWER—MORE
GAIN, LESS STRAIN**

*(As Long as You Don't
Procrastinate)*

Give me chastity
and continence,
but not yet.

—*Prayer of St. Augustine
during his pre-saintly
youth*

because they're beset by fewer temptations and inner conflicts. They're better at arranging their lives so that they avoid problem situations. This explanation jibed with the conclusion of another study, by Dutch researchers working with Baumeister, showing that people with good self-control mainly use it not for rescue in emergencies but rather to develop effective habits and routines in school and at work. The results of these habits and routines were demonstrated in yet

another recent set of studies, in the United States, showing that people with high self-control consistently report less stress in their lives. They use their self-control not to get through crises but to avoid them. They give themselves enough time to finish a project; they take the car to the shop before it breaks down; they stay away from all-you-can-eat buffets. They play offense instead of defense.

In this closing chapter we'll review the strategy for going on offense, starting with one of the most

obvious yet widely ignored rules: Don't keep putting it off. Procrastination is an almost universal vice. Cicero called procrastinators "hateful"; Jonathan Edwards preached an entire sermon against the "sin and folly of depending on future time." In modern surveys, 95 percent of people admit to doing it at least sometimes (we have no idea who those other 5 percent are—or whom they're trying to kid), and the problem seems to get worse as societies modernize and temptations multiply. The

estimate that they waste a quarter of their hours on the job—two hours per workday. At the typical wage, that means that each employee is being paid about \$10,000 annually for time spent slacking off.

This vice has often been blamed, by psychologists as well as ditherers, on people's compulsion to do things perfectly. Supposedly these perfectionists are flooded with worry and anxiety whenever they try to start a project because they see it's not living up to their ideals, so they get bogged down or

are plenty of other people with high standards who don't procrastinate and do perfectly good work without pulling all-nighters.

The trait that does seem to matter is impulsiveness, which shows up over and over in studies of procrastinators. This connection helps explain recent evidence that procrastination is more of a problem for men than it is for women, and especially for young men: Men have more hard-to-control impulses. When procrastinators are feeling

anxious about a difficult job, or just bored by a mundane chore, they give in to the urge to improve their mood by doing something else. They go for the immediate reward, playing a video game instead of cleaning the kitchen or writing a term paper, and they try to ignore the long-term consequences. When thoughts of future deadlines intrude, they may even try telling themselves that it's smart to wait until the last minute: *I work best under deadline pressure!* But

mostly they're kidding themselves, as Baumeister and Dianne Tice discovered.

The Deadline Test

The procrastination experiment took place in a wonderfully target-rich environment: a university campus. College students typically admit to spending a third of their waking hours procrastinating, and who knows how much more time is actually being wasted. Tice, who taught a course in health psychology at Case Western

discovered that some of the students who scored high on the procrastination questionnaire hadn't even bothered to write down the first two deadlines. As far as they were concerned, the double-extended due date was the only one that counted.

The papers were graded by instructors who didn't know when the work had been submitted, but Tice and Baumeister kept track of that information so that they could compare the students' performance. The procrastinators—as measured both on the

study, she found a stunning result: The procrastinators were healthier! They reported fewer symptoms and fewer physician visits. It looked as if there were a trade-off: Sure, the early birds had gotten their work in on time and had gotten better grades than the procrastinators, but the latter had enjoyed better health. Exercising self-control ahead of the deadline seemed to take some sort of toll, perhaps by diverting glucose from the immune system. But as Baumeister and Tice pondered this result, they

remembered that the students' assignment to keep health records had ended before the final week of the semester—just when the procrastinators were doing their last-minute papers. They might have been healthier when they were not working, but what happened to them at the end of the term, when the deadlines came due?

So the experiment was repeated another semester with another class, and this time the students continued to keep track of illnesses, symptoms, and physician visits right up

through final exams. Once again the procrastinators got lower grades and enjoyed better health early in the semester, when some of the early birds in the class were sniffing with colds as they worked on their papers. The procrastinators may have been out playing Frisbee, relaxing at parties, getting plenty of sleep. For a procrastinator whose deadlines are far off, life is pretty good. But eventually the bill comes due. At the end of the semester, the procrastinators suffered considerably more stress

than the others. Now they had to pull themselves together to do the overdue work, and they reported a sharp rise in symptoms and illnesses. In fact, the procrastinators were so much sicker than other students at the end of the semester that it more than canceled out their better health from the early weeks. Their all-nighters took a toll, and they had more health problems overall.

The worst procrastinators didn't even manage to meet the third and final deadline. They

fell back on the sop that many universities offer procrastinating students, which is to take an “Incomplete” grade, thus postponing the work until the next semester. The university allowed incomplete grades but had a firm policy that all work had to be made up and handed in so that grades could be turned in to the registrar by 5:00 P.M. on a particular Friday late in the following semester. This Friday, then, was a hard-and-fast deadline, with no wiggle room, for the students of Tice who took

an Incomplete—a group that included, inevitably, the female student who had scored highest on the procrastination questionnaire at the start of the term. According to university policy, it was up to her to work out a schedule with her teacher for completing the work so that there was time for it to be read and graded. Weeks went by, but there was no word from her. Finally, on the afternoon of that fatal Friday, barely two hours before the grade was due at the registrar's office, the student telephoned.

Willpower 101, First Lesson: Know Your Limits

No matter what you want to achieve, playing offense begins by recognizing the two basic lessons from chapter 1: Your supply of willpower is limited, and you use the same resource for many different things. Each day may start off with your stock of willpower fresh and renewed, at least if you've had a good night's sleep and a healthy breakfast. But then all day things chip and nibble

away at it. The complexity of modern life makes it difficult to keep in mind that all these seemingly unrelated chores and demands draw on the same account inside of you.

Consider some of the things that happen in a typical day. You pull yourself out of bed even though your body wants more sleep. You put up with traffic frustrations. You hold your tongue when your boss or spouse angers you, or when a store clerk says “Just one second” and takes six minutes to get back to you. You try to

unrelated events depletes how much you have left for the others.

This depletion isn't intuitively obvious, especially when it comes to appreciating the impact of making decisions. Virtually no one has a gut-level sense of just how tiring it is to decide. Choosing what to have for dinner, where to go on vacation, whom to hire, how much to spend—these all take willpower. Even hypothetical decisions deplete energy. After making some tough decisions, remember that

your self-control is going to be weakened.

Remember, too, that what matters is the exertion, not the outcome. If you struggle with temptation and then give in, you're still depleted because you struggled. Giving in does *not* replenish the willpower you have already expended. All it does is save you from expending any more. You may have spent the day succumbing to a series of temptations and impulses, but you could nonetheless have used up quite a bit of energy by resisting each

deplete you to pass up the impractical one with the spectacular view.

Watch for Symptoms

There's no obvious "feeling" of depletion. Hence you need to watch yourself for subtle, easily misinterpreted signs. Do things seem to bother you more than they should? Has the volume somehow been turned up on your life so that things are felt more strongly than usual? Is it suddenly hard to make up your mind about even simple things? Are you

protein. Get some healthy food into your body, wait half an hour, and then the decision won't seem so overwhelming.

Pick Your Battles

You can't control or even predict the stresses that come into your life, but you can use the calm periods, or at least the peaceful moments, to plan an offense. Start an exercise program. Learn a new skill. Quit smoking, reduce drinking, make one or two lasting changes toward a healthy diet. These are all

flexibility and anticipate setbacks. When you check your progress at month's end, remember that you don't have to meet each goal every time—what matters is that your life gradually improves from month to month.

Aiming for huge and quick transformations will backfire if they seem impossible. If you can't bring yourself to quit smoking altogether, try cutting down to two or three cigarettes per day. If you're drinking too much but won't swear off alcohol, perhaps you can live with a

willpower. How will you expend your willpower today, this evening, and the next month? If there are extra challenges ahead, like doing your taxes or traveling, figure out where you'll get the extra willpower, such as by cutting back on other demands.

When you're budgeting your time, don't give drudgery more than its necessary share. Remember Parkinson's Law: Work expands so as to fill the time available for its completion. Set a firm time limit for tedious tasks.

“Clean out basement” or “Reorganize closets” could take up the whole day—if you ever got around to it, which you won’t because you don’t want to lose a day of your life to something so mundane. But if you set a clear limit of one or two hours, you might get something done this Saturday (and then, if necessary, plan another short stint of work for another weekend). Even David Allen, the guru of productivity, makes allowances for Parkinson’s Law. When he travels for speeches on *Getting Things*

Done, he doesn't start packing until thirty-five minutes before departure. "I know I can pack in thirty-five minutes," he says, "but if I start any earlier, I could spend six hours on it. Giving myself a deadline forces me to make decisions that I don't want to make ahead of time—and I've accepted that about myself. I've got bigger battles to fight."

Make a To-Do List—or at Least a To-Don't List

We devoted chapter 3 to the glorious history of the

Beware the Planning Fallacy

Whenever you set a goal, beware of what psychologists call the planning fallacy. It affects everyone from young students to veteran executives. When was the last time you heard of a highway or building being completed six months early? Late and over budget is the norm.

The planning fallacy was quantified in an experiment involving college seniors working on honors theses. The psychologist Roger Buehler

wrong—but in fact it wasn't. Not even half the students finished by their worst-case predicted date. The planning fallacy can affect just about everyone, but it takes a special toll on procrastinators who expect to get the job done in one concentrated burst of effort at the last minute. This strategy might work if they left themselves a big enough chunk of time right before the deadline, but they won't do that. They'll underestimate how long the work will take, and then they'll discover that

theses. Another finding was that students were also much more realistic and hence more accurate at predicting the completion dates for *other* students' theses. All of us, whether or not we're serious procrastinators, tend to have an optimistic bias toward our own work, so it makes sense to ask others to review our plans. You might write a quick e-mail outlining your plans, or just describe it briefly in a conversation. Or you can be a little more systematic (without getting too complicated) by following

only get goals one and two done, but not three, that's fine, but you can't go off working on other goals until you've done the top three. That's it—that's how we manage. It's simple, but it forces you to prioritize, and it's rigorous.”

Don't Forget the Basics (like Changing Your Socks)

As you start working toward your goal, your brain will automatically economize on willpower expenditures in other ways. Remember those college

leave you with less energy—and fewer healthy relationships.

Forget the image of starving artists who do great things by working around the clock in filthy garrets. Self-control will be most effective if you take good basic care of your body, starting with diet and sleep. You can indulge yourself in rich desserts, but be sure to get enough healthy food on a regular basis so that your mind has adequate energy. Sleep is probably even more important than food: The more that researchers

study sleep deprivation, the more nasty effects they keep discovering. A big mug of coffee in the morning is not an adequate substitute for sleeping until your body wakes up on its own because it has gotten enough rest. The old advice that things will seem better in the morning has nothing to do with daylight, and everything to do with depletion. A rested will is a stronger will.

Another simple old-fashioned way to boost your willpower is to expend a little of it on neatness. As we described in chapter 7,

one way or the other. Bad habits are strengthened by routine: The doughnut shop you pass on the way to work, the midafternoon cigarette break or chocolate binge, the after-work drink, the late-night bowl of ice cream while watching the same TV show in the same easy chair. Changing your routine makes it easier to break these habits. Take a different route to work. Go for a midafternoon stroll. Schedule a session at the gym after work. Eat ice cream only at the kitchen table, and switch to doing sit-ups during that TV

show. Do your Web surfing on a different computer from the one where you work. To break a really entrenched bad habit like smoking, do it on vacation, when you're far away from the people and places and events you associate with cigarettes.

The Power of Positive Procrastination

Procrastination is usually a vice, but occasionally—very occasionally—there is such a thing as positive procrastination. In the previous chapter we

discussed experiments showing that people tempted by chocolate managed to avoid it by telling themselves they'd eat it some other time—a postponement strategy that worked better than trying to deny themselves altogether. This “I’ll have it later” trick can work for other temptations, too. If a TV show is keeping you from getting back to work, record it and tell yourself you’ll finish watching it later. You might discover, once you’ve finished work and don’t need an excuse to procrastinate, that you

scientific article about tropical fish, build a bookshelf, arrange books on said shelf, and write an answer to a friend's letter that had been sitting in a pile on his desk for twenty years. All he had to do was draw up a to-do list for the week and put these tasks below his top priority—his job of writing an article.

“The secret of my incredible energy and efficiency in getting work done is a simple one,” Benchley wrote. “The psychological principle is this: anyone can do any amount of work, provided

The Nothing Alternative (and Other Tricks of Offense)

Anthony Trollope's writing regimen is one path to self-discipline, as we mentioned in chapter 5. But what if, unlike Trollope with his watch at his side, you're incapable of producing 250 words every fifteen minutes? Fortunately, there's another strategy for ordinary mortals, courtesy of Raymond Chandler, who was bewildered by writers who could churn out prose every day.

Chandler had his own system for turning out *The*

This Nothing Alternative is a marvelously simple tool against procrastination for just about any kind of task. Although your work may not be as solitary and clearly defined as Chandler's, you can still benefit by setting aside time to do one and only one thing. You might, for instance, resolve to start your day with ninety minutes devoted to your most important goal, with no interruptions from e-mail or phone calls, no side excursions anywhere on the Web. Just follow Chandler's regimen:

“Write or nothing. It’s the same principle as keeping order in a school. If you make the pupils behave, they will learn something just to keep from being bored. I find it works. Two very simple rules, a. you don’t have to write. b. you can’t do anything else. The rest comes of itself.”

The rest comes of itself. That’s the seeming effortlessness that comes from playing offense. Chandler was incorporating several of the techniques we discussed earlier. The Nothing

Alternative is a bright-line rule: a clear, unmistakable boundary, like the no-drinking vow taken by Eric Clapton and Mary Karr. Chandler's particular rule—*If I can't write, I will do nothing*—is also an example of an implementation plan, that specific if-x-then-y strategy that has been shown to reduce the demands on willpower. It's easier to resist the temptation to go into debt if you enter the store with a firm implementation plan, like, *If I shop for clothes, I will buy only what I can pay*

cigarette in their mouths while watching a movie without succumbing to the temptation to smoke. Plenty took the bet, and they lost. Better to precommit by leaving the cigarette somewhere else.

Keep Track

Monitoring is crucial for any kind of plan you make—and it can even work if you don't make a plan at all. Weighing yourself every day or keeping a food diary can help you lose weight, just as tracking your purchases

break the rules, when you might be tempted to write yourself off as a hopeless cause, you can see otherwise by looking back at your progress. Gaining a couple of pounds this week isn't so discouraging if you've got a chart for the last six months showing a line sloping downward.

Reward Often

When you set a goal, set a reward for reaching it—and then don't stiff yourself. If you just use willpower to deny yourself things, it becomes a grim, thankless

people's responses to incentives.

Online games became essentially the largest experiment ever conducted into motivational strategies. By getting instant feedback from millions of online players, the game designers learned precisely which incentives work: a mix of frequent small prizes with occasional big ones. Even when players lose battles or make mistakes or die, they remain motivated because of the emphasis on rewards rather than punishment. Instead of feeling as if

The Future of Self-control

Until fairly recently, most people relied on a traditional method for maintaining self-control: They outsourced the job to God. Or at least to the fellow members of their religion. Divine precepts and social pressure from the rest of the congregation made religion the most powerful promoter of self-control for most of history. Today, even though the influence of religion is waning in some places, people are learning other ways to outsource self-

themselves on previously forbidden (or unaffordable) fruit, but eventually they look for a more satisfying way to live.

The point of self-control isn't simply to be more "productive." People today don't have to work as hard as Ben Franklin and the Victorians did. In the nineteenth century, the typical worker had barely an hour of free time per day and didn't even think about retiring. Today we spend only about a fifth of our adult waking hours on the job. The remaining time is an astonishing

too late that we still don't have any time for it. Researchers term this the "Yes . . . Damn!" effect.

And we keep putting off present pleasures, like visiting the zoo or getting away for the weekend. There's so much of this procrastination that airlines and other marketers save billions of dollars annually from frequent flyer miles and gift certificates that go unredeemed. Like pathological tightwads who end up with saver's remorse, procrastinators of pleasure wind up regretting

the trips not taken and the fun forgone. Whether you're working or playing, you'll find more happiness and less stress by going on offense. Your ideal of paradise might be three weeks of doing nothing on a tropical island, but you can't get there without making plans in advance—and maybe, in the case of workaholics, establishing some bright-line rules against working in paradise.

Self-control is ultimately about much more than self-help. It's essential for savoring your time on

earth and sharing joy with the people you love. Of all the benefits that have been demonstrated in Baumeister's experiments, one of the most heartening is this: People with stronger willpower are more altruistic. They're more likely to donate to charity, to do volunteer work, and to offer their own homes as shelter to someone with no place to go. Willpower evolved because it was crucial for our ancestors to get along with the rest of the clan, and it's still serving that purpose today. Inner

discipline still leads to outer kindness.

That's why, despite all the foibles and failings described in this book, there's reason to be bullish on self-control. Willpower is still evolving. Lots of us have succumbed lately to new temptations, and there will be plenty of unexpected challenges ahead. But no matter what new technologies arise, no matter how overwhelming some of the new threats seem, humans have the capacity to deal with them. Our willpower has made us the most adaptable

